

*MOJAVE DESERT*  
*AIR QUALITY MANAGEMENT DISTRICT*

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Federal Operating Permit Number: 000500364

For: Molycorp, Inc.

Facility: Mountain Pass Mine

Issued Pursuant to MDAQMD Regulation XII  
Effective Date: March 17, 2004

This Federal Operating Permit Expires On:  
March 17, 2009

Issued By: Charles L. Fryxell  
Air Pollution Control Officer

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## TABLE OF CONTENTS

	<u>Page</u>
Part I      Introductory Information . . . . .	3 through 10
Part II     Applicable Requirements and Emissions Limitations . . . . .	11 through 34
Part III    Monitoring, Recordkeeping, Reporting and Testing Requirements	35 through 123
Part IV    Standard Federal Operating Permit Conditions . . . . .	124 through 126
Part V     Operational Flexibility Provisions . . . . .	127
Part VI    Permit Shield	128
Part VII    Conventions, Abbreviations, Definitions . . . . .	129 through 130
Appendix A   Table A-1, Table A-2 and Table 1 . . . . .	131 to end

Note 1: Please see Tables A-1 and A-2 in Appendix A for a list of unit categories and a list of applicable requirements by unit category.

Note 2: Please see Table 1 in Appendix A for a list of monitoring and recordkeeping for individual permitted emission and control units.

## PART I INTRODUCTORY INFORMATION

### FACILITY IDENTIFYING INFORMATION:

<u>Owner/Company Name:</u>	MOLYCORP, INC.
<u>Facility Names:</u>	Molycorp, Inc. – Mountain Pass Mine
<u>Facility Location:</u>	67750 Bailey Road Mountain Pass, CA 92366
<u>Mailing Address:</u>	MOLYCORP, INC. P.O. BOX 124 Mountain Pass, CA 92366
<u>MDAQMD Federal Operating Permit Number:</u>	000500364
<u>MDAQMD Company Number:</u>	0005
<u>MDAQMD Facility Number:</u>	00364
<u>Responsible Official:</u>	David Bhame
<u>Title:</u>	Operations Manager
<u>Phone Number:</u>	(760) 856-7621
<u>Facility “Site” Contacts:</u>	Scott Honan Supervisor, Environmental Compliance
<u>Phone Number:</u>	(760) 856-7656 FAX (760) 856-2253
<u>Facility “Off Site” Contacts:</u>	none
<u>Phone Number:</u>	
<u>Nature of Business:</u>	Lanthanide Mining
<u>SIC Code:</u>	1099 Lanthanide Mining& Processing
<u>Facility Location:</u>	UTM (Km) 634E / 3927N

## **DESCRIPTION OF FACILITY & PROCESSES:**

### **LANTHANIDES**

Capabilities at Mountain Pass range from extracting the ore out of the ground to producing high-grade lanthanide oxides. Surface mining methods are used to produce 2000 tons of crushed ore per day. The mill reduces the crushed ore even further in preparation for the froth flotation operation that yields bastnasite - a widely consumed mineral feedstock containing the natural ratio of lanthanide elements.

Although separations facilities are currently suspended, Molycorp has the capability to isolate the individual lanthanides through our beneficiation facilities. This results in high purity, high value products used in a wide variety of applications. We ensure product quality through the use of our state-of-the-art analytical lab.

Lanthanide products play a tremendous role in our daily lives as we depend on them in our cell phones, televisions, computers, and transportation systems. The lanthanides are valuable for the environment as they pave the way for cleaner air and enable new pollution-control systems for the future. Molycorp's Mountain Pass Lanthanide mine is the **only** operational Western Resource for these essential elements.

### **MOUNTAIN PASS, CA - MINERALOGY**

Our Mountain Pass mine is one of those locations on earth where a fortuitous combination of geology and chemistry has brought the lanthanides together in a goodly concentration. Among the inorganic elements, several with similar properties are grouped together and collectively called the "lanthanides". The chemist's periodic table places them in a special position.

The Mountain Pass lanthanide ore deposit contains about 40% calcite, 25% barite, 10% strontianite, 12% bastnasite, 8% silica and minor amounts of other minerals.

Our mineral bastnasite contains seven lanthanides that are either concentrated or recovered at Mountain Pass, although others are present. The distribution of lanthanides is as follows:

<u>ELEMENTS</u>	<u>Lanthanide Oxide Equivalent (LnO)</u>
Cerium (Ce)	49.0%
Lanthanum (La)	33.0%
Neodymium (Nd)	13.0%
Praseodymium (Pr)	4.0%
Samarium (Sm)	0.5%
Gadolinium (Gd)	0.2%
Europium (Eu)	0.1%
Others	0.2%

## **MINING OPERATIONS**

Mountain Pass, California is one of the few places on earth, and currently the only Western resource, where geology and chemistry came together to form an economically mineable lanthanide (rare earth) ore-body.

The Precambrian bastnasite ore deposit is 250 feet thick, has a strike length of 2300 feet, and dips into the ground at a 40-degree angle. Surface mining techniques have been employed since inception of commercial lanthanide operations in 1951. Mining is carried out with 85-ton haul trucks and 13 cubic yard front-end loaders. Geological projections, ore-body mapping, blast hole cutting assays, and metallurgical testing provide necessary input to ensure consistent, on-grade ore production. A stripping ratio of approximately 8 tons of waste per ton ore yields an 8.5% ore grade feed to the mill.

Today, approximately 50 years after inception of mining at Mountain Pass, the pit you see measures about 1500 feet in diameter and 500 feet deep.

## **MILLING OPERATIONS**

Ore is hauled to a crushing plant, reduced to less than 3/8 inch in size, and fed to the ball mill where grinding liberates the mineral grains prior to froth flotation. The flotation operation concentrates the bastnasite ore from an initial 8.5% to a 60% Lanthanide Oxide (LnO) product. An enriched 70% LnO product is produced after flotation with a hydrochloric acid leach, which dissolves the carbonate gangue. The bastnasite concentrates are thickened, filtered, and dried for shipment or sent to our separations facilities for further recovery operations.

## **SEPARATION OPERATIONS**

Molycorp has the capability of producing lanthanide concentrates as well as high purity products in several forms. The separations facilities are temporarily suspended subject to the resolution of wastewater disposal issues.

Bastnasite is selectively leached to separate the insoluble cerium fraction from the other lanthanide elements. The cerium product is washed to remove any contaminants, then filtered and dried prior to packaging according to customer specifications.

The dissolved lanthanides proceed through impurity removal steps, then to solvent extraction cells where a collector preferentially extracts the heavier elements and rejects the lighter fraction. The heavier fraction is separated at our Europium recovery facility where Europium is extracted as a high purity oxide. The lighter fraction may be precipitated, thickened, filtered, dried and packaged as lanthanum concentrate or further purified via solvent extraction to produce high purity lanthanum, praseodymium, or neodymium products.

## **LABORATORY OPERATIONS**

Highly trained and experienced professional analytical chemists staff our ISO 9002 certified, state-of-the-art analytical laboratory. We utilize measurement systems including inductively coupled plasma (ICP) -atomic emission, ICP-mass, fusion disc X-ray fluorescence, and atomic absorption and UV-visible spectrometers.

Our chemists perform traditional bench-scale wet chemical analysis for precise lanthanide results as well as particle size and surface area analyses for products requiring specific sizing specifications. Critical customer specifications for individual lanthanides and other elemental constituents are measured, tracked, and reported for in-process and final products ready for shipment. The lab instrumentation detects individual lanthanide elements from major concentrations down to part per million levels in a precise, accurate, and reliable manner.

Our Laboratory Information Management System (LIMS) provides the needed storage capabilities necessary for the thousands of analyses performed monthly. LIMS instantaneous data retrieval feature supports our material tracing ability from the ore through final packaging.

The following processes occur in this sequence. Part III of the Title V Permit contains permitted equipment (with operational conditions) listed in the order of this table:

<b>PROCESSES</b>
1 - Crushing Plant/Cement Load out & Storage
2 - Mill / Floatation Plant
2A - Mill / Floatation Plant
3 - 15% Aqua Ammonia System
4 - Separations Plant
4A - Separations Plant
4B - Separations Plant
5 - Cerium 96 Plant
6 - Specialty Plant
6A - Specialty Plant
6B - Specialty Plant
6C - Specialty Plant
7 - Miscellaneous Equipment

## MDAQMD PERMIT LISTING; SEE FOLLOWING TABLE:

<b>Permit #</b>	<b>Application #</b>	<b>Permit Status</b>	<b>Permit Type</b>	<b>Permit Description</b>
B000372	00003868	PTO	Basic	RARE EARTH ROASTER
B000373	00000180	INACT	Basic	BASTNASITE CONCENTRATE DRYER NO. 2
B000375	00003871	PTO	Basic	CEMENT AND AGGREGATE LOADOUT SYSTEM
B000377	00003873	PTO	Basic	CERIUM CIRCUIT No. 2 PACKAGING SYSTEM AT CHEMICAL PLANT
B000379	00003874	PTO	Basic	CERIUM CIRCUIT No. 2 - DRYER SYSTEM
B000382	00003876	PTO	Basic	BOILER
B000383	00003877	PTO	Basic	ROTARY KILN DRYER No. 1 LANTHANUM
B000385	00003878	PTO	Basic	ROTARY KILN DRYER - No. 2 LANTHANUM
B000698	00003879	PTO	Basic	FURNACE #1: YTTRIUM/EUROPIUM CO-PRECIP
B000699	00003880	PTO	Basic	FURNACE #2: YTTRIUM OXIDE
B000819	00000658	PTO	Basic	CONCENTRATE DRYER NO. 1
B000821	00003881	PTO	Basic	PACKAGING SYSTEM - No. 1 CONCENTRATE (AT FLOATATION PLANT)
B000822	00003882	INACT	Basic	GRINDING MILL FEED No. 1
B000823	00003884	PTO	Basic	GRINDING MILL FEED No. 2
B000825	00003885	PTO	Basic	No. 2 LANTHANUM - BULK LOADING
B000826	00003889	PTO	Basic	No. 1 CERIUM CONCENTRATE BAGGING

B000828	00003886	PTO	Basic	MACHINE
B000840	00003887	PTO	Basic	SKINNER ROASTER SYSTEM
B000841	00003888	PTO	Basic	BOILER - STEAM
B000842	00003906	PTO	Basic	DRYER SYSTEM - No.1 CERIUM CIRCUIT
B000846	00005613	PTO	Basic	SODA ASH SYSTEM - CHEMICAL PLANT
B001099	00003908	PTO	Basic	CRUSHING PLANT No. 3
B001936	00003912	PTO	Basic	BOILER - SPECIALTY
B001938	00003919	PTO	Basic	SX TANKS -LANTHANIDE PROCESS
B001941	00003926	PTO	Basic	LEAD PRECIPITATION SYSTEM - LANTHANUM
B001947	00003929	PTO	Basic	LEACH/CCD CIRCUIT - LANTHANIDES PROCESS
B002167	00003944	PTO	Basic	LANTHANUM PRECIPITATION PROCESS
B002168	00003946	PTO	Basic	PRODUCT DRYER - CERIUM CARBONATE
B002169	00003948	PTO	Basic	PACKAGING - CERIUM CARBONATE
B002170	00003953	PTO	Basic	LEACH CIRCUIT - CERIUM CARBONATE
B002171	00003956	PTO	Basic	CERIUM 96 PLANT - IRON REMOVAL CIRCUIT
				NEUTRALIZATION SCRUBBER SOLUTION
				CIRCUIT
B002173	00003958	PTO	Basic	CERIUM CARBONATE CIRCUIT
B002371	00003961	PTO	Basic	SOLVENT EXTRACTION,- CIRCUIT No. 4
B002372	00003963	PTO	Basic	SPECIALTY PLANT FEED PREPARATION CIRCUIT
B002373	00003973	ATC	Basic	SOLVENT EXTRACTION CIRCUIT - SX 3/6
B002374	00003976	PTO	Basic	SOLVENT EXTRACTION -CERIUM SPECIALTY
				PLANT (SX-7)
B002827	00006071	PTO	Basic	SODA ASH TREATMENT SYSTEM
B002828	00003980	PTO	Basic	ROUGHER FLOATATION SYSTEM
B002831	00003982	PTO	Basic	PACKAGING SYSTEM FOR CERIUM CIRCUIT NO.
				2
B002832	00003984	PTO	Basic	PACKAGING MACHINE FOR No. 1 LANTHANUM
				DRYER SYSTEM
B003259	00003999	PTO	Basic	DRYER - CHEMICAL PLANT RIBBON BLENDER
B003265	00004000	PTO	Basic	FLAKE LANTHANUM PROCESS
B003995	00000189	PTO	Basic	CALCINER SERVING THE NEODYMIUM OXIDE
				PROCESS WITH 300 LB/H AND 600 LB/H
				AVERAGE AND MAXIMUM THROUGHPUTS AT
				1800 DEGREES F ON NEODYMIUM CARBONATE,
				FIRED WITH PROPANE.
B004027	00004002	PTO	Basic	FURNACE #3: YTTRIUM-EUROPIUM COPRECIP
B004028	00004012	PTO	Basic	PACKAGING - YTTRIUM PROCESS
B004030	00004013	PTO	Basic	PACKAGING - YTTRIUM, CO-PRECIPITATION
B004033	00004019	PTO	Basic	CERIUM SLURRY MAKE-UP PROCESS
B004035	00004020	INACT	Basic	LEAD CINDER/FLY ASH STABILIZATION
				PROCESS
B004087	00004018	PTO	Basic	NEO CARB/NEO CARB FLUORIDE CIRCUIT
B004088	00004026	INACT	Basic	CERIUM 90 LEACH CIRCUIT
B004090	00004027	PTO	Basic	No. 2 SODA ASH FEED PROCESS
B004093	00004028	INACT	Basic	WASTE WATER TREATMENT SYSTEM
B004100	00004030	PTO	Basic	LEACH RESIDUE (CE-96 PLANT) CIRCUIT
B004325	00004032	INACT	Basic	AQUA AMMONIA (15%) SYSTEM
B004333	00004035	PTO	Basic	YTTRIUM PRECIPITATION - SPECIALTY PLANT
B004371	00004009	PTO	Basic	PURIFICATION PROCESS - EUROPIUM
B004489	00004036	PTO	Basic	STABILIZED LEAD/IRON REINTRODUCTION
				PROCESS
B004664	00004038	PTO	Basic	RIBBON BLENDER DRYER
B004921	00004003	PTO	Basic	CERIUM REDOX CIRCUIT
B004923	00004039	PTO	Basic	SPECIALTY PLANT No. 1 NEODYMIUM DRYER
B004924	00004040	PTO	Basic	SPECIALTY PLANT No. 2 NEODYMIUM DRYER
B004933	00004041	PTO	Basic	LEACH CIRCUIT - FLOATATION PLANT
B007791	00005268	INACT	Basic	PORTABLE IMPACT CRUSHER
B007792	00005298	ATC	Basic	DIESEL ENGINE DRIVEN GENERATOR
B008263	00006066	PTO	Basic	FLOTATION REAGENT HANDLING SYSTEM
B008294	00006126	INACT	Basic	Temporary Rare Earth Packaging System
B008344	00006281	INACT	Basic	ALTERNATE TEMPORARY RARE EARTH
				PACKAGING SYSTEM
B008348	00006297	INACT	Basic	TEMPORARY LANTHANUM PACKAGING SYSTEM
C000324	00003991	PTO	Air Pollution Control Device	SCRUBBER - HCL
C000325	00003993	PTO	Air Pollution Control Device	SCRUBBER - HCL
C000376	00004053	PTO	Air Pollution Control Device	BAGHOUSE - No. 1 PACKAGING MACHINE (MILL)

C000378	00004054	PTO	Air Pollution Control Device	BAGHOUSE - No. 2 CERIUM CIRCUIT DRYER SYSTEM
C000380	00004077	PTO	Air Pollution Control Device	BAGHOUSE - No. 2 CERIUM CIRCUIT PACKAGING SYSTEM
C000384	00004057	PTO	Air Pollution Control Device	BAGHOUSE - No. 1 LANTHANUM ROTARY KILN DRYER
C000700	00005287	PTO	Air Pollution Control Device	BAGHOUSE
C000702	00004078	PTO	Air Pollution Control Device	BAGHOUSE - YTTRIUM OXIDE PRODUCTS
C000827	00004076	PTO	Air Pollution Control Device	BAGHOUSE - CERIUM CONCENTRATE SACKING MACHINE
C000838	00004056	PTO	Air Pollution Control Device	BAGHOUSE - No. 2 LANTHANUM ROTARY KILN DRYER
C001789	00004055	PTO	Air Pollution Control Device	BAGHOUSE - No.2 LANTHANUM HYDRATE PACKAGING SYSTEM
C001934	00004090	PTO	Air Pollution Control Device	VAPOR RECOVERY SYSTEM - SX TANK No. 2 (CHEMICAL PLANT)
C001935	00004091	PTO	Air Pollution Control Device	VAPOR RECOVERY SYSTEM
C001940	00003928	PTO	Air Pollution Control Device	SCRUBBER, CAUSTIC - HCL LEACH TANKS (B001941)
C002077	00003950	PTO	Air Pollution Control Device	SCRUBBER (HCL) -
C002078	00003945	PTO	Air Pollution Control Device	BAGHOUSE - CERIUM DRYER
C002174	00003947	PTO	Air Pollution Control Device	BIN VENT - CERIUM CARBONATE PACKAGER
C002375	00004058	PTO	Air Pollution Control Device	BAGHOUSE - No. 1 CONCENTRATE DRYER
C002594	00004059	PTO	Air Pollution Control Device	BAGHOUSE - No. 1 LANTHANUM PACKAGING SYSTEM
C002595	00004075	PTO	Air Pollution Control Device	BAGHOUSE - HERRESHOFF ROASTER
C002697	00004060	PTO	Air Pollution Control Device	BAGHOUSE - PRIMARY CRUSHER
C002698	00005586	PTO	Air Pollution Control Device	BAGHOUSE (SCREENING TOWER #3 CRUSHING PLANT)
C003203	00004062	PTO	Air Pollution Control Device	BIN VENT - SODA ASH STORAGE TANK
C003205	00004063	PTO	Air Pollution Control Device	BIN VENT - CHEMICAL PLANT SODA ASH SYSTEM
C003266	00004001	PTO	Air Pollution Control Device	SCRUBBER - LANTHANUM FLAKE PROCESS
C003592	00004074	PTO	Air Pollution Control Device	BAGHOUSE - No. 1 CERIUM CIRCUIT DRYER
C003593	00004073	PTO	Air Pollution Control Device	BAGHOUSE - SKINNER ROASTER SYSTEM
C003996	00004085	PTO	Air Pollution Control Device	BAGHOUSE - NEODYMIUM OXIDE CALCINER
C003998	00003951	PTO	Air Pollution Control Device	BIN VENT - BORAX STORAGE BIN
C003999	00005428	PTO	Air Pollution Control Device	BIN VENT - NO. 4 CONCENTRATE
C004000	00003955	PTO	Air Pollution Control Device	SCRUBBER - IRON PRECIPITATION & NEUTRALIZATION TANKS
C004029	00004079	PTO	Air Pollution Control Device	BAGHOUSE - YTTRIUM PACKAGING PROCESS
C004031	00004080	PTO	Air Pollution Control Device	BAGHOUSE - YTTRIUM CO-PRECIPTATION PACKAGING PROCESS
C004032	00004072	PTO	Air Pollution Control Device	BAGHOUSE - HERRESHOFF ROASTER
C004034	00004022	PTO	Air Pollution Control Device	BAGHOUSE - CERIUM SLURRY MAKE-UP
C004036	00004023	INACT	Air Pollution Control Device	BAGHOUSE - Pb CINDER/FLY ASH STABILIZATION
C004089	00004067	PTO	Air Pollution Control Device	BIN VENT - NO. 2 SODA ASH FEED PROCESS
C004094	00004066	PTO	Air Pollution Control Device	BIN VENT - LIME BIN (HERRESHOFF ROASTER)



C004097	00004065	PTO	Air Pollution Control Device	BIN VENT - NO. 1 204 CONCENTRATE STORGE BIN
C004098	00004064	PTO	Air Pollution Control Device	BIN VENT - NO. 2 204 CONCENTRATE STORAGE BIN
C004255	00003965	PTO	Air Pollution Control Device	CAUSTIC SCRUBBER
C004295	00003960	PTO	Air Pollution Control Device	BAGHOUSE - SODA ASH STORAGE BIN (PRODUCT PRECIPITATION)
C004326	00004034	INACT	Air Pollution Control Device	SCRUBBER - AQUA AMMONIA
C004343	00004005	PTO	Air Pollution Control Device	BAGHOUSE - No 1 CONCENTRATE
C004415	00004081	PTO	Air Pollution Control Device	BIN VENT - No. 2 CERIUM PACKAGING SYSTEM (SOUTH BIN)
C004416	00004071	PTO	Air Pollution Control Device	BAGHOUSE - No. 2 CERIUM PACKAGING SYSTEM
C004490	00004037	PTO	Air Pollution Control Device	BAGHOUSE - STABILIZED Pb/Fe REINTRODUCTION PROCESS
C004615	00003998	PTO	Air Pollution Control Device	BIN VENT - CEMENT SILO
C004666	00004082	PTO	Air Pollution Control Device	SCRUBBER - CAUSTIC (LEAD REMOVAL CIRCUIT)
C004710	00004010	PTO	Air Pollution Control Device	BIN VENT - PURIFICATION PROCESS
C004711	00004011	PTO	Air Pollution Control Device	CAUSTIC SCRUBBER- PURIFICATION PROCESS
C004922	00004088	ATC	Air Pollution Control Device	SCRUBBER - CAUSTIC (CERIUM REDOX CIRCUIT)
C004925	00004070	PTO	Air Pollution Control Device	BAGHOUSE - No.1 NEODYMIUM DRYER
C004926	00004069	PTO	Air Pollution Control Device	BAGHOUSE - No.2 NEODYMIUM DRYER
C004930	00004031	PTO	Air Pollution Control Device	WATER SCRUBBER
C004939	00004068	INACT	Air Pollution Control Device	BAGHOUSE - No.2 CONCENTRATE DRYER
C004941	00004084	PTO	Air Pollution Control Device	BIN VENT - PORTABLE SILO (CHEMICAL PLANT)
C005098	00004042	PTO	Air Pollution Control Device	SCRUBBER No. 1- LEACH CIRCUIT (FLOATATION PLANT)
C008264	00006067	ATC	Air Pollution Control Device	BAGHOUSE (FLOTATION REAGENT HANDLING)
C008295	00006127	INACT	Air Pollution Control Device	Temporary Rare Earth Packaging System Particulate Controls
N004629	00004008	PTO	Gasoline Service Station - Non-Retail	GASOLINE DISPENSING FACILITY (NON-RETAIL)
T000374	00004044	PTO	Tanks (or Silos)	CEMENT SILO
T000824	00004045	PTO	Tanks (or Silos)	No. 2 CRUSHED ORE STORAGE BIN
T000834	00004046	PTO	Tanks (or Silos)	STORAGE TANKS - HYDROCHLORIC ACID
T000835	00003992	PTO	Tanks (or Silos)	STORAGE TANK - HCL FOR MILL
T001942	00003985	INACT	Tanks (or Silos)	BASTNASITE LEACH TANK SYSTEM
T001943	00003986	PTO	Tanks (or Silos)	SOLVENT STORAGE - SPECIALTY PLANT
T001948	00003988	PTO	Tanks (or Silos)	KEROSENE STORAGE - SEPARATIONS PLANT STORAGE
T002826	00004047	PTO	Tanks (or Silos)	SODA ASH STORAGE TANK
T002830	00004048	PTO	Tanks (or Silos)	STORAGE TANK- FEED TO ROD MILL No 1
T003117	00004006	PTO	Tanks (or Silos)	TANK - WASTE OIL
T004092	00004049	PTO	Tanks (or Silos)	TANK FARM - FEED STORAGE
T004095	00004050	PTO	Tanks (or Silos)	CONCENTRATE STORAGE BIN
T004096	00004051	PTO	Tanks (or Silos)	CONCENTRATE STORAGE BIN
T004548	00004052	PTO	Tanks (or Silos)	PORTABLE SILO
T004939	00004004	PTO	Tanks (or Silos)	HOPPER

**PART II**  
**FACILITYWIDE APPLICABLE REQUIREMENTS; EMISSIONS**  
**LIMITATIONS; MONITORING, RECORDKEEPING,**  
**REPORTING AND TESTING REQUIREMENTS; COMPLIANCE**  
**CONDITIONS; COMPLIANCE PLANS**

A. REQUIREMENTS APPLICABLE TO ENTIRE FACILITY AND EQUIPMENT:

1. A permit is required to operate various equipment at this facility.  
[Rule 203 - *Permit to Operate*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
2. The equipment at this facility shall not be operated contrary to the conditions specified in the District permit to operate.  
[Rule 203 - *Permit to Operate*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
3. The Air Pollution Control Officer may impose written conditions on any permit.  
[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
4. Commencing work or operation under a permit shall be deemed acceptance of all the conditions specified in such permit.  
[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
5. Permits to operate shall be kept available at the facility, as approved by the APCO/District.  
[Rule 206 - *Posting of Permit to Operate*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
6. Owner/Operator shall not willfully deface, alter, forge or falsify any permit issued under District rules.  
[Rule 207 - *Altering or Falsifying of Permit*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) and 52.220(c)(31)(vi)(C) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
7. Permits are not transferable.  
[Rule 209 - *Transfer and Voiding of Permit*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
8. The Air Pollution Control Officer may require the Owner/Operator to provide and maintain such facilities as are necessary for sampling and testing. In the event of such requirements, the Air Pollution Control Officer shall notify the Owner/Operator in writing of the required size, number and location of sampling ports; the size and location of the sampling platform; the access to the sampling platform, and the utilities for operating the sampling and testing equipment. The platform and access shall be constructed in accordance with the General Industry Safety Orders of the State of California.  
[Rule 217 - *Testing*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]

9. The equipment at this facility shall not require a District permit or be listed on the Title V permit if such equipment is listed in Rule 219 and meets the applicable criteria contained in Rule 219 (B). However, any exempted insignificant activities/equipment are still subject to all applicable facility-wide requirements.

[SIP Pending: Rule 219 - *Equipment Not Requiring a Written Permit* as Amended 10/23/00 submitted on 10/30/01; Prior version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237] [The SIP-pending version is not federally enforceable.]

10. The Owner/Operator of this facility shall obtain a Federal Operating Permit for operation of this facility.

[Rule 221 - *Federal Operating Permit Requirement*; Version in SIP = Current, 40 CFR 52.220(c)(216)(i)(A)(2) - 02/05/96 61 FR 4217]

11. Owner/Operator shall pay all applicable MDAQMD permit fees.

[Rule 301 - *Permit Fees*; Applicable Version = 10/23/94, Applicable via Title V Program interim approval 02/05/96 61 FR 4217]

12. Owner/Operator shall pay all applicable MDAQMD Title V permit fees.

[Rule 312 - *Fees for Federal Operating Permits*; Applicable Version = 10/23/94, Applicable via Title V Program interim approval 02/05/96 61 FR 4217]

13. Owner/Operator shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke that is designated No. 1 on the Ringelmann Chart.

a. While any unit is fired on diesel fuel, Periodic Monitoring conducted following EPA Method 22, in addition to required recordkeeping, is required to validate compliance with Rule 401 Visible Emissions limit as indicated below:

i. For reciprocating engines equal or greater than 1000 horsepower, firing on only diesel with no restrictions on operation a visible emissions inspection is required every three (3) months. If an engine is not operated during a quarter, a visible emissions inspection is not required for those three (3) months.

ii. Diesel Standby and emergency reciprocating engines using California low sulfur fuels require no additional monitoring for opacity.

iii. Diesel/Distillate-Fueled Boilers firing on California low sulfur fuels require a visible emissions inspection after every 1 million gallons diesel combusted, to be counted cumulatively over a 5 year period.

iv. On any of the above, if a visible emissions inspection conducted following EPA Method 22 documents opacity, an EPA Method 9 "Visible Emissions Evaluation" shall be completed within 3 working days, or during the next scheduled operating period if the unit ceases firing on diesel/distillate within the 3 working day time frame.

b. All solid materials handling units require quarterly visible emissions monitoring.

[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]

[Rule 401 - *Visible Emissions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

[40 CFR 70.6 (a)(3)(i)(B) - *Periodic Monitoring Requirements*]

14. Owner/Operator shall not burn any propane at this facility containing sulfur compounds in excess of 800 ppm calculated as hydrogen sulfide at standard conditions, or any diesel fuel having a sulfur content in excess of 0.5 percent by weight. Records of propane supplier fuel quality/sulfur content limit shall be kept on-site for review by District, state or federal personnel at any time. Keeping records of the facility's independent analysis of diesel fuel sulfur content or the diesel fuel supplier's fuel analysis guarantee showing fuel sulfur content shall determine compliance with Rule 431 sulfur limit for diesel fuel. The sulfur content of diesel fuel shall be determined by use of ASTM method D 2622-82, or (ASTM method D 2880-71, or equivalent).  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]  
[Rule 431 - *Sulfur Content of Fuels*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 09/08/78 - 43 FR 40011; Current Rule Version = 07/25/77]
15. Emissions of fugitive dust from any transport, handling, construction or storage activity at this facility shall not be visible in the atmosphere beyond the property line of the facility.  
[Rule 403 - *Fugitive Dust*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]
16. Owner/Operator shall not discharge into the atmosphere from this facility, particulate matter except liquid sulfur compounds, in excess of the concentration at standard conditions, shown in Rule 404, Table 404 (a).
  - (a) Where the volume discharged is between figures listed in the table, the exact concentration permitted to be discharged shall be determined by linear interpolation.
  - (b) This condition shall not apply to emissions resulting from the combustion of diesel or PUC quality natural gas fuels in steam generators or gas turbines.
  - (c) For the purposes of this condition, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.  
[Rule 404 - *Particulate Matter Concentration*; Version in SIP = Current, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489]
17. Owner/Operator shall not discharge into the atmosphere from any source at this facility, solid particulate matter including lead and lead compounds in excess of the rate shown in Rule 405, Table 405(a).
  - (a) Where the process weight per hour is between figures listed in the table, the exact weight of permitted discharge shall be determined by linear interpolation.
  - (b) For the purposes of this condition emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.  
[Rule 405 - *Solid Particulate Matter, Weight*; Version in SIP = Current, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489]
18. Owner/Operator shall not discharge into the atmosphere, from any single source of emissions at this facility whatsoever, Sulfur compounds, which would exist as a liquid or gas at standard conditions, calculated as sulfur dioxide (SO<sub>2</sub>) greater than or equal to 500 ppm by volume.  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]  
[Rule 406 - *Specific Contaminants*; Version in SIP = 07/25/77, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489, Subpart (a) only; Current Rule Version = 02/20/79]
19. Owner/Operator shall not discharge into the atmosphere from any source at this facility, carbon monoxide (CO) exceeding 2000 ppm measured on a dry basis, averaged over a minimum of 15 consecutive minutes.

- (a) The provisions of this condition shall not apply to emissions from internal combustion engines.  
[Rule 407 - *Liquid and Gaseous Air Contaminants*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]
20. Owner/Operator shall not build, erect, install or use any equipment at this facility, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the Health and Safety Code or of District Rules.
- (a) This condition shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code, or of District Rule 402.  
[Rule 408 - *Circumvention*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]
21. Owner/Operator shall not discharge into the atmosphere from the burning of fuel in any single source at this facility, combustion contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO<sub>2</sub>) at standard conditions averaged over a minimum of 25 consecutive minutes.  
[Rule 409 - *Combustion Contaminants*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]
22. APCO in his/her discretion, may refrain from enforcement action against an Owner/Operator of any equipment which has violated a technology-based emission limitation, including but not limited to conditions contained in any permit issued by the District establishing such emission limitation, provided that a Breakdown has occurred per Rule 430 and the facility has elected to provide immediate notification under Rule 430, and:
- (a) Any breakdown which results in emissions exceeding a technology-based emission limitation is reported to the District within one hour of such breakdown or within one hour of the time a person knew or reasonably should have known of the occurrence of such breakdown; and
- (b) An estimate of the repair time is provided to the District as soon as possible after the report of the breakdown; and
- (c) All reasonable steps are immediately taken to minimize the levels of emissions and to correct the condition leading to the excess emissions.
- (d) The equipment is operated only until the end of a cycle or twenty-four (24) hours, whichever is sooner, at which time it shall be shut down for repairs unless a petition for an emergency variance has been filed with the clerk of the Hearing Board in accordance with Regulation V.
- (e) If the breakdown occurs outside normal District working hours the intent to file an emergency variance shall be transmitted to the District in a form and manner prescribed by the Air Pollution Control Officer.  
[Rule 1203(D)(1)(e)(ii)]
23. Owner/Operator of this facility shall not discharge organic materials into the atmosphere from equipment in which organic solvents or materials containing organic solvents are used, unless such emissions have been reduced by at least 85% or to the following:
- (a) Organic materials that come into contact with flame or are baked, heat cured or heat polymerized, are limited to 1.4 kilograms (3.1 pounds) per hour not to exceed 6.5 kilograms (14.3 pounds) per day.

- (b) Organic materials emitted into the atmosphere from the use of photochemically reactive solvents are limited to 3.6 kilograms (7.9 pounds) per hour, not to exceed 18 kilograms (39.6 pounds) per day, except as provided in Rule 442, subsection (a)(1). All organic materials emitted for a drying period of 12 hours following their application shall be included in this limit.
- (c) Organic materials emitted into the atmosphere from the use of non-photochemically reactive solvents are limited to 36.8 kilograms (81 pounds) per hour not to exceed 272 kilograms (600 pounds) per day. All organic materials emitted for a drying period of 12 hours following their application shall be included in this limit.
- (d) The provisions of this condition shall not apply to the manufacture of organic solvents, or the transport or storage of organic solvents, or the transport or storage of materials containing organic solvents.
- (e) The provisions of this condition shall not apply to the use of equipment for which other requirements are specified by Rules 461, 462, 463, and 464 or which are exempt from air pollution control requirements by said rules.

[Rule 442 - *Usage of Solvents*; Version in SIP = Current, 40 CFR 52.220(c)(51)(xii)(B) - 06/09/82 47 FR 25013]

24. Owner/Operator of this facility shall comply with the Organic Solvent Degreasing Operations requirements of Rule 1104 when engaged in wipe cleaning, cold solvent cleaning and/or vapor cleaning (degreasing) operations for metal/non-metal parts/products. These requirements are listed as follows:
- (a) All degreasers shall be equipped with a cover that reduces solvent evaporation and minimizes disturbing the vapor zone.
  - (b) A permanent, conspicuous label summarizing the applicable operating requirements contained in Rule 1104. In lieu of a label, operating instructions may be posted near the degreaser where the operators can access the proper operating requirements of this rule.
  - (c) Cold Solvent Degreasers - Freeboard Requirements:
    - (i) Cold solvent degreasers using only low volatility solvents which are not agitated, shall operate with a freeboard height of not less than 6 inches.
    - (ii) Cold solvent degreasers using only low volatility solvents may operate with a freeboard ratio equal to or greater than 0.50 when the cold solvent degreaser has a cover which remains closed during the cleaning operation.
    - (iii) Any cold solvent degreasers using solvent which is agitated, or heated above 50°C (120°F) shall operate with a freeboard ratio equal to or greater than 0.75.
    - (iv) A water cover may be used as an acceptable control method to meet the freeboard requirements, when the solvent is insoluble in water and has a specific gravity greater than 1.
  - (d) Cold Solvent Degreasers - Cover Requirements:
    - (i) Cold solvent degreasers using high volatility solvent shall have a cover that is a sliding, rolling or guillotine (bi-parting) type which is designed to easily open and close without disturbing the vapor zone.
  - (e) Cold Solvent Degreasers - Solvent Level Identification:
    - (i) A permanent, conspicuous mark locating the maximum allowable solvent level conforming to the applicable freeboard requirements.
  - (f) All Degreasers shall comply with the following operating requirements:
    - (i) Any solvent cleaning equipment and any emission control device shall be operated and maintained in strict accord with the recommendations of the manufacturer.

- (ii) Degreasers shall not be operating with any detectable solvent leaks.
  - (iii) All solvent, including waste solvent and waste solvent residues, shall be stored in closed containers at all times. All containers for any solvent(s) shall have a label indicating the name of the solvent/material they contain.
  - (iv) Waste solvent and any residues shall be disposed of by one of the following methods: a commercial waste solvent reclamation service licensed by the State of California; or a federally or state licensed facility to treat, store or dispose of such waste; or the originating facility may recycle the waste solvent and materials in conformance with requirements of Section 25143.2 of the California Health and Safety Code.
  - (v) Degreasers shall be covered to prevent fugitive leaks of vapors, except when processing work or to perform maintenance.
  - (vi) Solvent carry-out shall be minimized by the following methods:
    - a) Rack workload arranged to promote complete drainage
    - b) Limit the vertical speed of the power hoist to 3.3 meters per minute (11 ft/min) or less when such a hoist is used.
    - c) Retain the workload inside of the vapor zone until condensation ceases.
    - d) Tip out any pools of solvent remaining on the cleaned parts before removing them from the degreaser if the degreasers are operated manually.
    - e) Do not remove parts from the degreaser until the parts are visually dry and not dripping/leaking solvent. (This does not apply to an emulsion cleaner workload that is rinsed with water within the degreaser immediately after cleaning.)
  - (vii) The cleaning of porous or absorbent materials such as cloth, leather, wood or rope is prohibited.
  - (viii) Except for sealed chamber degreasers, all solvent agitation shall be by either pump recirculation, a mixer, or ultrasonics.
  - (ix) The solvent spray system shall be used in a manner such that liquid solvent does not splash outside of the container. The solvent spray shall be a continuous stream, not atomized or shower type, unless, the spray is conducted in a totally enclosed space, separated from the environment.
  - (x) For those degreasers equipped with a water separator, no solvent shall be visually detectable in the water in the separator.
  - (xi) Wipe cleaning materials containing solvent shall be kept in closed containers at all times, except during use.
  - (xii) A degreaser shall be located so as to minimize drafts being directed across the cleaning equipment, the exposed solvent surface, or the top surface of the vapor blanket.
  - (xiii) A method for draining cleaned material, such as a drying rack suspended above the solvent and within the freeboard area, shall be used so that the drained solvent is returned to the degreaser or container.
- (g) Rule 442 Applicability:  
Any solvent using operation or facility which is not subject to the source-specific Rule 1104 shall comply with the provisions of Rule 442. Any solvent using operation or facility which is exempt from all or a portion of the VOC limits, equipment limits or the operational limits of Rule 1104 shall be subject to the applicable provisions of Rule 442.
- (h) Solvent Usage Records:

Owner/Operator subject to Rule 1104 or claiming any exemption under Rule 1104, Section (E), shall comply with the following requirements:

- (1) Maintain and have available during an inspection, a current list of solvents in use at the facility which provides all of the data necessary to evaluate compliance, including the following information separately for each degreaser, as applicable:
  - (i) product name(s) used in the degreaser, and
  - (ii) the mix ratio of solvent compounds mixtures of solvents used, and
  - (iii) VOC content of solvent or mixture of compounds as used, and
  - (iv) the total volume of the solvent(s) used for the facility, on a monthly basis, and
  - (v) the name and total volume applied of wipe cleaning solvent(s) used, on a monthly basis.
- (2) Additionally, for any degreaser utilizing an add-on emission control device/system as a means of complying with provisions of Rule 1104 shall, on a monthly basis, maintain records of key system operating and maintenance data. Such data is recorded for the purpose of demonstrating continuous compliance during periods of emission producing activities. The data shall be recorded in a manner as prescribed by the District.
- (3) Documentation shall be maintained on site of the disposal or on site recycling of any waste solvent or residues.
- (4) Records shall be retained (at facility) and available for inspection by District, state or federal personnel for the previous 5 year period as required by this Title V / Federal Operating Permit.

[Rule 1104 - Organic Solvent Degreasing Operations; Version in SIP = Current, 40 CFR 52.220(c)(207)(i)(D)(2) - 04/30/96 61 FR 18962, effective 11/30/94]

25. Owner/Operator's use of *Architectural Coatings* at this facility shall comply with the requirements of Rule 1113, including the VOC limits specified in Rule 1113, part C.  
[**SIP-Pending:** Rule 1113 - *Architectural Coatings* as amended 03/25/02 and submitted on 04/01/03; Version in SIP = 02/20/79, 40 CFR 52.220(c)(51)(xii)(B)-06/09/82 47 FR 25013]  
[The SIP-pending version is not federally enforceable.]
26. Owner/Operator shall apply coatings to metal parts and products subject to the provisions of Rule 1115 by using equipment properly operated according to manufacturer's suggested guidelines using one or more of the following methods:
  - (a) Electrostatic attraction.
  - (b) High Volume Low Pressure (HVLP) spray equipment.
  - (c) Dip coat.
  - (d) Hand Application Methods.

[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
27. Owner/Operator shall not apply to metal parts and products any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, which contain VOC in excess of the limits specified below unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with a capture and control system Combined Efficiency of at least 85 percent:

LIMITS

(Grams of VOC Per Liter of Coating, Less Water and Less Exempt Compounds)

Coating

Air Dried

Baked



	g/L	(lb/gal)	g/L	(lb/gal)
General	420	(3.5)	360	(3.0)
Military Specification	420	(3.5)	360	(3.0)
Etching Filler	420	(3.5)	420	(3.5)
Solar-Absorbent	420	(3.5)	360	(3.0)
Heat-Resistant	420	(3.5)	360	(3.0)
High-Gloss	420	(3.5)	360	(3.0)
Extreme High-Gloss	420	(3.5)	360	(3.0)
Metallic	420	(3.5)	420	(3.5)
Extreme Performance	420	(3.5)	360	(3.0)
Prefabricated Architectural				
Component	420	(3.5)	275	(2.3)
Touch Up	420	(3.5)	360	(3.0)
Repair	420	(3.5)	360	(3.0)
Silicone-Release	420	(3.5)	420	(3.5)
High Performance				
Architectural	420	(3.5)	420	(3.5)
Camouflage	420	(3.5)	420	(3.5)
Vacuum-Metalizing	420	(3.5)	420	(3.5)
Mold-Seal	420	(3.5)	420	(3.5)
High-Temperature	420	(3.5)	420	(3.5)
Electric-Insulating Varnish	420	(3.5)	420	(3.5)
Pan-Backing	420	(3.5)	420	(3.5)
Pretreatment Wash Primer	420	(3.5)	420	(3.5)
Clear Coating	520	(4.3)	520	(4.3)

[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

28. The provisions of Part II, Condition A.26 shall not apply to the application of touch-up coatings, repair coatings, textured coatings, metallic coatings which have a metallic content of more than 30 grams per liter, mold-seal coatings, and to facilities that use less than three gallons of such coatings per day, as applied, including any VOC-containing materials added to the original coatings as supplied by the manufacturer.  
[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
29. The provisions of Part II, Conditions A.26 and A.27 shall not apply to metal coating operations performed on aircraft or aerospace vehicles; magnet wire; metal containers, closures and coils; marine vessel exteriors; motor vehicles; motor vehicle assembly lines; mobile equipment; or those operations subject to the coating provisions of any other source-specific rule of the District.  
[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
30. The provisions of Part II, Conditions A.26 and A.27 shall not apply to:
  - (a) A facility which uses a total of less than one gallon of coating in any one day, including any VOC-containing materials added to the original coating as supplied by the manufacturer.
  - (b) Total noncompliant coating use per facility that does not exceed 55 gallons per year.
  - (c) Stencil coatings.

- (d) Safety-indicating coatings.
  - (e) Magnetic data storage disk coatings.
  - (f) Solid-film lubricants.
  - (g) Adhesives.
  - (h) The coating of motor vehicle bodies at motor vehicle rework facilities.
- [Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
31. Owner/Operator of any facility classified as exempt or claiming to be exempt under Rule 1115, shall meet the record keeping requirements of Rule 1115 so as to be able to certify the exemption status.  
[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
32. Owner/Operator of any coating, coating operation, or facility which is exempt from all or a portion of the VOC limits of Rule 1115 shall comply with the provisions of Rule 442 unless compliance with the limits specified in Rule 1115 are achieved.  
[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
33. Owner/Operator shall comply with the following requirements when using solvent for surface preparation, cleanup, and paint removal, including paint spray equipment:
- (a) (i) VOC-containing materials for surface preparation shall not have a VOC content in excess of 200 grams of VOC per liter of material (1.67 pounds per gallon); or
  - (ii) VOC-containing materials has an initial boiling point of 190 deg C (374 deg F) or greater; or
  - (iii) VOC-containing materials has a total VOC vapor pressure of 20 mm Hg or less, at 20 deg C (68 deg F).
  - (b) Owner/Operator shall use closed, nonabsorbent containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.
  - (c) Owner/Operator shall store fresh or spent solvent in closed containers.
  - (d) Owner/Operator shall not use organic compounds for the cleanup of spray equipment including paint lines unless an enclosed system is used for cleanup. The system shall enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing and draining procedures. Equipment used shall minimize the evaporation of organic compounds to the atmosphere.
- [Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
34. Owner/Operator shall not specify the use in the District of any coating to be applied to any metal parts and products subject to the provisions of this Rule 1115 that does not meet the limits and requirements of Rule 1115. This requirement applies to all written or oral contracts.  
[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
35. Owner/Operator subject to Part II, Section A, conditions A.26 through A.37 shall comply with the following requirements:
- (a) Owner/Operator shall maintain and have available during an inspection, a current list of coatings in use which provides all of the coating data necessary to evaluate compliance, including the following information, as applicable:
    - 1. coating, catalyst, and reducer used.

2. mix ratio of components used.
  3. VOC content of coating as applied.
  4. quantity of Group II exempt compounds used.
  - (b) Owner/Operator shall maintain records on a daily basis including:
    1. coating and mix ratio of components used in the coating; and
    2. quantity of each coating applied.
  - (c) Owner/Operator shall maintain records on a daily basis showing the type and amount of solvent used for cleanup, surface preparation, and paint removal.
  - (d) Records shall be retained (at facility) and available for inspection by District, state or federal personnel for the previous 5 year period as required by this Title V / Federal Operating Permit.
- [Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
36. Owner/Operator shall obtain, and maintain records from the coating/ paint manufacturer regarding the VOC content of the coating/paint and any solvents contained therein.  
[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]
  37. The Owner/Operator of any facility electing to engage in the mixing of coatings/ paints or solvents shall be required to obtain and maintain an analysis of the mixture from an independent testing laboratory.  
[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]
  38. A violation of the limits contained in Part II, Conditions A.26 through A.37 as determined by any one of Part II, Condition 39 *Reference Method Tests* shall constitute a violation of applicable Part II conditions.  
[Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]
  39. The following specified *Reference Method Tests* shall be used to determine compliance with the provisions of Part II, Conditions A.26 through A.38, as required by Rule 1115:
    - (a) The VOC content of coatings and solvents, as specified in subsections (C)(2) and (C)(4)(c)(i), shall be analyzed as prescribed by USEPA Reference Method 24 for VOC content (without correction for exempt compounds) and ASTM D4457-85, or CARB Method 432, for determination of emissions of exempt compounds. Perfluorocarbon compounds shall be assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon compounds) and the amounts present in the product or process and provides a validated test method which can be used to quantify the specific compounds.
    - (b) Determination of the initial boiling point of liquid containing VOC, subject to subsection (C)(4)(c)(ii), shall be conducted in accordance with ASTM D1078-86.
    - (c) Calculation of total VOC vapor pressure for materials subject to subsection (C)(4)(c)(iii) shall be conducted in accordance with ASTM D2879-86. The fraction of water and exempt compounds in the liquid phase shall be determined by using ASTM D3792-91 and D4457-85 and shall be used to calculate the partial pressure of water and exempt

- compounds. The results of vapor pressure measurements obtained using ASTM D2879-86 shall be corrected for partial pressure of water and exempt compounds.
- (d) Measurement of solvent losses from alternative application cleaning equipment subject to (C)(4)(b)(iii) shall be conducted in accordance with the South Coast Air Quality Management District's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems" (11/1/94).
  - (e) Measurement of acid content of a substance shall be determined by ASTM D1613-85.
  - (f) Measurement of metal content of coatings shall be determined in accordance with South Coast Air Quality Management District's "Laboratory Methods of Analysis for Enforcement Samples" manual, "Determination of Percent Metal in Metallic Coatings by Spectrographic Method, Method 311".
  - (g) Capture Efficiency shall be determined according to USEPA's technical document, "Guidelines for Determining Capture Efficiency" (1/9/95).
  - (h) The control efficiency of the Control Device shall be determined according to USEPA Test Methods 25, 25A or 25B for measuring the total gaseous organic concentrations at the inlet and outlet of the emissions Control Device, as contained in 40 CFR Part 60, Appendix A. USEPA Test Method 18 or CARB Method 422 shall be used to determine emissions of exempt compounds.
  - (i) Measurement of solids content by weight of a substance shall be conducted in accordance with ASTM D1475-60.
  - (j) Alternative test methods may be used upon obtaining the approval of the APCO, CARB and USEPA.
  - (k) Demonstration of Transfer Efficiency of alternative application methods subject to Rule 1115 subsection (C)(1)(a)(v) shall be conducted in accordance with South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User" (5/24/89).
- [Rule 1115 - *Metal Parts and Products Coating Operations*; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]
- 40. Owner/Operator shall comply with all requirements of the District's Title V Program, MDAQMD Rules 1200 through 1210 (Regulation XII - *Federal Operating Permits*).  
[Applicable via Title V Program interim approval 02/05/96 61 FR 4217]
  - 41. Please see Tables A-1 and A-2 in Appendix A for a list of unit categories and a list of applicable requirements by unit category.
  - 42. Please see Table 1 in Appendix A for a list of monitoring and recordkeeping for individual permitted emission and control units.

**B. FACILITYWIDE MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS:**

1. Any data and records generated and/or kept pursuant to the requirements in this federal operating permit (Title V Permit) shall be kept current and on site for a minimum of five (5) years from the date generated. Any records, data or logs shall be supplied to District, state or federal personnel upon request.  
[40 CFR 70.6(a)(3)(ii)(B); Rule 1203(D)(1)(d)(ii)].
2. Any Compliance/Performance testing required by this Federal Operating Permit shall follow the administrative procedures contained in the District's Compliance Test Procedural Manual. Any required annual Compliance and/or Performance Testing shall be accomplished by obtaining advance written approval from the District pursuant to the District's Compliance Test Procedural Manual. All emission determinations shall be made as stipulated in the Written Test Protocol accepted by the District. When proposed testing involves the same procedures followed in prior District approved testing, then the previously approved Written Test Protocol may be used with District concurrence.  
[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
3. Owner/Operator of all permitted fuel burning units subject to Comprehensive Emissions Inventory Report / Annual Emissions Determinations for District, State, and Federal required Emission Inventories shall monitor and record the following for each unit:
  - (a) The cumulative annual usage of each fuel type. The cumulative annual usage of each fuel type shall be monitored from utility service meters, purchase or tank fill records.
  - (b) Fuel suppliers' fuel analysis certification/guarantee for each shipment or by contract term including fuel sulfur content or the results of the facility's independent analysis of diesel fuel sulfur content shall be kept on site and available for inspection by District, state or federal personnel upon request. The sulfur content of diesel fuel shall be determined by use of ASTM method D2622-82, or (ASTM method D 2880-71, or equivalent). Vendor data meeting this requirement is sufficient.  
[40 CFR 70.6(a)(3)(B) – *Periodic Monitoring Requirements*]  
[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]  
[Federal Clean Air Act: §110(a)(2)(F, K & J); §112; §172(c)(3); §182(a)(3)(A & B); §187(a)(5); § 301(a)] and in California Clean Air Act, Health and Safety Code §§39607 and §§44300 et seq.]
- 4 (a). Owner/Operator shall submit Compliance Certification annually as prescribed by Rule 1203(F)(1) and Rule 1208. Compliance Certification by a Responsible Official shall certify the truth, accuracy and completeness of the document submitted and contain a statement to the effect that the certification is based upon information and belief, formed after a reasonable inquiry; the statements and information in the document are true, accurate, and complete.

- [40 CFR 70.6(c)(5)(i); Rule 1203(D)(1)(g)(vii); Rule 1203(F)(1); Rule 1208]
- (b). Owner/Operator shall include in any Compliance Certification the methods used for monitoring such compliance.  
[40 CFR 70.6(c)(5)(ii); Rule 1203(D)(1)(g)(viii)]
- (c). Owner/Operator when submitting any Compliance Certification(s) to the MDAQMD shall contemporaneously submit such Compliance Certification(s) to USEPA.  
[40 CFR 70.6(5)(iii); Rule 1203(D)(g)(ix)]
- (d). Owner/Operator shall comply with any additional certification requirements as specified in 42 U.S.C §7414(a)(3), Recordkeeping, Inspections, Monitoring and Entry (Federal Clean Air Act §114(a)(3)) and 42 U.S.C. §7661c(b), Permit Requirements and Conditions (Federal Clean Air Act §503(b)), or in regulations promulgated thereunder.  
[Rule 1203 (D)(1)(g)(x)]
- (e). On an annual basis, of any given year, Owner/Operator shall submit a *Compliance Certification Report*, within 30 days of the anniversary of the date of the issuance or renewal of the Federal Operating Permit, to the APCO/District pursuant to District Rule 1203. Each report shall be certified to be true, accurate, and complete by “The Responsible Official” and a copy of this annual report shall also be contemporaneously submitted to the EPA Region IX Administrator.  
[40 CFR 72.90.a and Rule 1203 (D)(1)(g)(v - x)]
5. Owner/Operator shall submit, on a semi-annual basis, a *Monitoring Report* to the APCO/District, with a copy to the EPA Region IX Administrator. Each *Monitoring Report* shall be submitted no later than 60 days after the midpoint (six months after the Title V Permit month & day issue date) of the Title V Permit anniversary date of any given year. This *Monitoring Report* shall be certified to be true, accurate, and complete by “The Responsible Official” and shall include the following information and/or data:
- (a) Summary of deviations from any federally-enforceable requirement in this permit.
- (b) Summary of all emissions monitoring and analysis methods required by any Applicable Requirement / federally - enforceable requirement.
- (c) Summary of all periodic monitoring, testing or record keeping (including test methods sufficient to yield reliable data) specified in this permit to determine compliance with any Applicable Requirement / federally - enforceable requirement that does not directly require such monitoring.  
[Rule 1203(D)(1)(c)(i - iii); 1203(D)(1)(d)(i); Rule 1203(D)(1)(e)(i - ii); Rule 1203(D)(1)(g)(v - x)]
6. Owner/Operator shall promptly report all deviations from federal operating permit requirements including, but not limited to: any emissions in excess of permit conditions, deviations attributable to breakdown conditions, and any other deviations from permit conditions. Such reports shall include the probable cause of the deviation and any corrective action or preventative measures taken as a result of the deviation. [Rule 1203(D)(1)(e)(ii)]
- Prompt reporting shall be determined as follows:
- (a) For deviations involving emissions of air contaminants in excess of permit conditions including those caused by a breakdown, a facility may elect to provide immediate notification under Rule 430, if the Rule 430 provisions apply.

However, in the case of deviations involving emissions of air contaminants in excess of permit conditions, if the facility does not qualify for Rule 430 immediate notification or does not elect to perform immediate notification under Rule 430, then prompt reporting shall be within 72 hours of the occurrence of the excess emission or within 72 hours of the time a person knew or reasonably should have known of the excess emission. Documentation and other relevant evidence regarding the excess emission shall be submitted to the District within sixty (60) days of the date the excess emission was reported to the District. [40 CFR 70.6(g)]

(b) For other deviations from permit conditions not involving excess emissions of air contaminants shall be submitted to the District with any required monitoring reports at least every six (6) months. [Rule 1203(D)(1)(e)(i)]

7. If any facility unit(s) should be determined not to be in compliance with any federally-enforceable requirement during the 5-year permit term, then owner/operator shall submit a *Schedule of Compliance*. In addition, Owner/Operator shall submit a *Progress Report* on the implementation of the *Schedule of Compliance*. The *Schedule of Compliance* shall contain the information outlined in (b), below. The *Progress Report* shall contain the information outlined in (c), below. The *Schedule of Compliance* shall become a part of this Federal Operating Permit by administrative incorporation. The *Progress Report* and *Schedule of Compliance* shall comply with Rule 1201(I)(3)(iii) and shall include:
- (a) A narrative description of how the facility will achieve compliance with such requirements; and
  - (b) A *Schedule of Compliance* which contains a list of remedial measures to be taken for the facility to come into compliance with such requirements, an enforceable sequence of actions, with milestones, leading to compliance with such requirements and provisions for the submission of *Progress Reports* at least every six (6) months. The *Schedule of Compliance* shall include any judicial order or administrative order relating to any Applicable Requirements/federally-enforceable requirements that is issued by any appropriate judicial body or by the District Hearing Board pursuant to the provisions of Health & Safety Code §42350 et seq.; and
  - (c) *Progress Reports* submitted under the provisions of a *Schedule of Compliance* shall include: Dates for achieving the activities, milestone, or compliance required in the schedule of compliance; and dates when such activities, milestones or compliance were achieved; and an explanation of why any dates in the schedule of compliance were not or will not be met; and any preventive or corrective measures adopted due to the failure to meet dates in the schedule of compliance. [Rule 1201 (I)(3)(iii); Rule 1203 (D)(1)(g)(v)]

**C. FACILITYWIDE COMPLIANCE CONDITIONS:**

1. Owner/Operator shall allow an authorized representative of the MDAQMD to enter upon the permit holder's premises at reasonable times.  
[40 CFR 70.6(c)(2)(i); Rule 1203(D)(1)(g)(i)]
2. Owner/Operator shall allow an authorized representative of the MDAQMD to have access to and copy any records that must be kept under condition(s) of this Federal Operating Permit.  
[40 CFR 70.6(c)(2)(ii); Rule 1203(D)(1)(g)(ii)]
3. Owner/Operator shall allow an authorized representative of the MDAQMD to inspect any equipment, practice or operation contained in or required under this Federal Operating Permit.  
[40 CFR 70.6(c)(2)(iii); Rule 1203(D)(1)(g)(iii)]
4. Owner/Operator shall allow an authorized representative of the MDAQMD to sample and/or otherwise monitor substances or parameters for the purpose of assuring compliance with this Federal Operating Permit or with any Applicable Requirement/federally-enforceable requirement.  
[40 CFR 70.6(c)(2)(iv); Rule 1203(D)(1)(g)(iv)]
5. Owner/Operator shall remain in compliance with all conditions contained in this Federal Operating Permit. Any noncompliance constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; the termination, revocation and re-issuance, or modification of this Federal Operating Permit; and/or grounds for denial of a renewal application.  
[1203 (D)(1)(f)(ii)]
6. Owner/Operator shall comply in a timely manner with all federally enforceable requirements that become effective during the term of this permit.  
[Rule 1201 (I)(2)]
7. Owner/Operator shall insure that all applicable subject processes comply with the provisions of 40 CFR 61, *National Emission Standards for Hazardous Air Pollutants*, subpart A, *General Provisions*, and subpart M, *Asbestos*.  
[40 CFR 61, subparts A and M]
8. Owner/Operator shall notify APCO/District at least 10 working days before any applicable asbestos stripping or removal work is to be performed as required by section 61.145.b of 40 CFR 61 subpart M, *National Emission Standard for Asbestos*.  
[40 CFR 61.145.b]
9. Owner/Operator shall notify the APCO/District, on an annual basis, postmarked by December 17 of the calendar year, of the predicted asbestos renovations for the following



year as required by section 61.145.b of 40 CFR 61, subpart M [see cite for threshold triggering and applicability].  
[40 CFR 61.145.b]

**D. CONDITIONS APPLICABLE TO ALL GASOLINE DISPENSING FACILITIES**

1. Owner/Operator shall not sale or supply for use within the District as a fuel for motor vehicles as defined by the Vehicle Code of the State of California, gasoline having a degree of unsaturation greater than that indicated by a Bromine Number of 30 as determined by ASTM Method D1159-66. [Rule 432 - *Gasoline Specifications*; Version in SIP = Current, 40 CFR 52.220(c)(39)(ii)(B) - 09/08/78 - 43 FR 40011]
  2. Owner/Operator shall not transfer, permit the transfer or provide equipment for the transfer of gasoline into or from any tank truck, trailer, or railroad tank car into the gasoline storage tank unless the transfer is made to tank equipped as required in Rule 463 or unless all of the following conditions are met:
    - (a) Tank is equipped with a permanent submerged fill pipe, and
    - (b) Such delivery vessel or tank is equipped with a vapor recovery system which has been certified by the California Air Resources Board, and the facility's vapor recovery system shall be capable of recovering or processing 95% of the displaced gasoline vapors, and
    - (c) All vapor return lines are connected between the tank truck, trailer, or railroad tank car and the gasoline tank, and the vapor recovery system is in operation in accordance with the manufacturer's specifications, and the delivery vehicle, including all hoses, fittings, and couplings, is maintained in a vapor-tight condition, as defined by the applicable California Air Resources Board certification and test procedures (Part II, Section B, of Title V Permit), and all equipment is operated and maintained according to the manufacturer's specifications.
    - (d) Hatch openings are limited to no more than 3 minutes in duration for visual inspection, provided that pumping has been stopped for at least 3 minutes prior to opening, and the hatch is closed fully before pumping is resumed.
    - (e) All lines are gravity drained, in such a manner that upon disconnect no liquid spillage would be expected; and
    - (f) Equipment subject to this condition shall be operated and maintained, with no defects, as follows:
      - (i) All fill tubes are equipped with vapor-tight covers, including gaskets; and
      - (ii) All dry breaks have vapor-tight seals and are equipped with vapor-tight covers or dust covers; and
      - (iii) Coaxial fill tubes are operated so there is no obstruction of vapor passage from the storage tank back to the delivery vehicle; and
      - (iv) The fill tube assembly, including fill tube, fittings and gaskets, is maintained to prevent vapor leakage from any portion of the vapor recovery system; and
      - (v) All storage tank vapor return pipes without dry breaks are equipped with vapor-tight covers, including gaskets.
- [Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]
3. Owner/Operator shall not transfer, or permit the transfer, or provide equipment for the transfer of gasoline from the gasoline storage tank into any motor vehicle tank of greater than 19 liters (5 gallons) capacity unless:
    - (a) The dispensing unit used to transfer the gasoline from the gasoline tank to the motor vehicle fuel tank is equipped with a vapor recovery system which has been certified by the California Air Resources Board as capable of recovering 95% of the displaced gasoline vapors; and

- (b) The vapor recovery system is operating in accordance with the manufacturer's specifications; and
- (c) Equipment is operated and maintained with none of the following defects, pursuant to the definitions in California Administrative Code Section 94006, Subchapter 8, Chapter 1, Part III, of Title 17:
  - (i) Torn or cut boots;
  - (ii) Torn or cut face seals or face cones;
  - (iii) Loose or broken retractors;
  - (iv) Boots clamped or otherwise held in an open position;
  - (v) Leaking nozzles;
  - (vi) Loose, missing, or disconnected nozzle components, including but not limited to boots, face seals, face cones, check valve wires, diaphragm covers and latching devices;
  - (vii) Defective shutoff mechanisms;
  - (viii) Loose, missing, or disconnected vapor fuel hoses and associated components including but not limited to flow restrictors, swivels and anti-recirculation valves;
  - (ix) Crimped, cut, severed, or otherwise damaged vapor or fuel hoses;
  - (x) Missing, turned off, or otherwise not operating assist type vapor recovery systems, or any components of such systems;
  - (xi) Improper or non-"CARB certified" equipment or components;
  - (xii) Inoperative, severely malfunctioning or missing vacuum producing device;
  - (xiii) Inoperative, loose, missing or disconnected pressure/vacuum relief valves, vapor check valves or dry breaks.

[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]

- 4. Vapor processing or vapor recovery system used by Owner/Operator shall comply with all safety, fire, weights and measures, and other applicable codes and/or regulations.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]
- 5. Owner/Operator shall not install any new or rebuilt vapor recovery equipment unless the components and parts clearly identify by markings the certified manufacturing company and/or certified rebuilding company.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]
- 6. Vapor recovery system shall be at all times maintained in accordance with the manufacturer's specifications and the State's certification.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]
- 7. When problems or defects are detected and are associated with any vapor recovery, storage, delivery vessel or dispensing equipment, other than a breakdown of the central vapor incineration or processing unit, the Owner/Operator shall at the end of the cycle, as defined in Rule 461, remove the equipment from service and not use the equipment until it has been repaired, replaced or adjusted as necessary to remove the problem or defect.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]

8. Owner/Operator shall not perform or permit the "pump-out" (bulk transfer) of gasoline from the gasoline storage tank unless such bulk transfer is performed using a vapor recovery system capable of returning the displaced vapors from the delivery vessel or other container being filled back to the gasoline storage tank. This vapor recovery is not required where the container is to be removed or filled with water for testing. For visual inspections, the requirements of Part II, Section B, condition B.3.d. are applicable.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]
9. Owner/Operator shall not store, or allow the storage of, gasoline in the gasoline storage tank unless the tank is equipped with a permanent submerged fill pipe and a certified vapor recovery system.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]
10. Owner/Operator shall maintain a log of all inspections, repairs, and maintenance on equipment subject to Rule 461 as listed in Part II, Section B conditions. In addition, Owner/Operator shall maintain a leak inspection log containing, at a minimum, the following: inspector's name, location and description of component type where any leak is found; date of leak detection, emission level (ppm) if applicable, and date leak is repaired. Such logs or records shall be maintained at the facility for a minimum of 5 years from the date the records were created and shall be made available to District, state or federal personnel upon request.  
[40 CFR 70.6(a)(3)(ii)(B); Rule 1203(D)(1)(d)(ii)].  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]  
[40 CFR 70.6(a)(3)(ii)(B); Rule 1203(D)(1)(d)(ii)]  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]
11. Any violation determined by any one of the following listed *Reference Method Tests* shall constitute a violation of applicable Part II and Part III conditions:
  - (a) Vapor Recovery System Efficiency for Delivery Vessels shall be determined by the EPA Method entitled, *Control of Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems* (method specified in the CTG EPA-450/2-78-051), or the CARB Method entitled, *Certification and Test Procedures for Vapor Recovery Systems of Gasoline Delivery Tanks*.
  - (b) Reid Vapor Pressure shall be determined in accordance with ASTM Method D 323-82.
  - (c) Vapor Recovery System Efficiency for Bulk Plants shall be determined by CARB Method 202, "*Certification of Vapor Recovery Systems - Bulk Plants*".
  - (d) Vapor Recovery System Efficiency for Terminals shall be determined by CARB Method 203, "*Certification of Vapor Recovery Systems - Gasoline Terminals*".
  - (e) Vapor Recovery System Efficiency for Service Stations shall be determined by the CARB Methods in "*Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations*".  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]  
[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]

12. Compliance with the requirement of the Phase II system to be 95 % effective for the recovery of displaced vapors is considered to be demonstrated by maintaining equipment as specified in the applicable ARB Executive Order certifying the system.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]  
[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
13. Owner/Operator shall maintain a daily log of product throughput for gasoline dispensing facility.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]
14. Owner/Operator shall conspicuously post in the gasoline dispensing area the operating instructions, the District's toll-free telephone number for complaints and a District specified warning sign. Post the following toll-free telephone number: 1-800-635-4617.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]
15. Any modifications or changes to the piping or control fittings of the vapor recovery system requires prior approval from the MDAQMD.  
[Rule 461 - *Gasoline Transfer and Dispensing*; Version in SIP = Current, 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 - 60 FR 21702]  
[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]
16. The gasoline dispensing facility shall comply with the following requirements:
  - (C) Basic Requirements
    - (2) Class B Facility: The Owner/Operator shall not load organic liquids having a true vapor pressure of 77.5 millimeters of mercury (1.5 psia) or greater under actual loading conditions into any tank truck, trailer, or railroad car from a Class B loading facility, unless:
      - (a) The facility is equipped with a vapor recovery system to prevent the release of fugitive vapor emissions during the filling of organic liquid delivery vehicles.
      - (b) The facility is equipped with a vapor recovery system to prevent the release of fugitive vapor emissions displaced during the filling of the facility's stationary storage containers with all connections and vapor lines to be maintained vapor tight; and
      - (c) The facility is equipped with a pressure-vacuum valve on the above ground stationary storage containers with a minimum pressure valve setting of 8 ounces per square inch, provided that such setting will not exceed the container's maximum pressure rating.
  - (D) Additional Requirements
    - (1) Other agencies requirements - The vapor recovery systems used to comply with the provision of this Rule shall comply with all safety, fire, weights and measures, and other applicable codes and/or regulations, including those listed in the California Health and Safety Code Sections 41950 - 41974.

- (2) Fugitive Vapor and Liquid Leaks - All of the components of the facility including but not limited to tanks, flanges, seals, pipes, pumps, valves, meters, connectors, shall be maintained and operated so as to prevent fugitive vapor leaks, fugitive liquid leaks and excess organic liquid drainage during transfer, storage and handling operations.
- (3) Organic Liquid Transport (Tank Truck, Trailer, etc.)
  - (a) The Owner/Operator shall not allow loading or unloading of organic liquid, or other use or operation of any designated transporting vessel unless the vessel has a valid certification of vapor integrity as defined by the applicable Air Resources Board Certification and Test Procedures, pursuant to Health and Safety Code Section 41962(9) and the California Administrative Code Title 17, Section 94004.
  - (b) Vapor leaks from dome covers, pressure vacuum vents or other sources shall be determined in accordance with EPA Method 21.
  - (c) The transport equipment shall be operated such that there are no fugitive liquid leaks.
- (4) Switch Loading: Uncontrolled switch loading is prohibited unless:
  - (a) Any vapors vented to the atmosphere do not at any point during the transfer exceed 10,000 ppmv, measured as equivalent methane, with a portable hydrocarbon analyzer in accordance with EPA Method 21, or
  - (b) Emissions are controlled by a vapor recovery system.
- (5) Distribution of Responsibilities
  - (a) The Owner/Operator of an organic liquid loading facility is responsible for complying with the provisions of this rule, and for maintaining the equipment at the facility in such condition that it can comply with the requirements of this rule if properly operated. If employees of the Owner/Operator of the facility supervise or effect the transfer operation, the Owner/Operator of the facility shall be responsible for ensuring that the transfer operation complies with all requirements of this rule and that the transfer equipment is properly operated.
  - (b) The owner, operator, or driver of a tank truck, trailer, or railroad tank car is responsible for complying with Subsections (D)(2) and (D)(3) of this rule.
  - (c) Where appropriate, the Owner/Operator of an organic liquid loading facility and the owner operator, or driver of a tank truck, trailer, or railroad tank car may be separately or jointly found in violation of this rule.
- (E) Record Keeping and Reporting
  - (1) Any facility subject to this rule shall, as a minimum, maintain the following records:
    - (a) The Owner/Operator shall maintain a log of all inspections, repairs, and maintenance on equipment subject to this rule. Such logs or records shall be maintained at the facility for at least 2 years and shall be made available to the APCO upon request.
    - (b) The Owner/Operator of a Class A or Class B Facility shall prepare a log showing the daily:
      - (i) Input
      - (ii) Output
      - (iii) Average stored volume over the 24 hour period (midnight to midnight)

- (iv) Storage and transfer temperatures of the organic liquid
  - (v) Stored product's name and Chemical Abstracts Service (CAS) number
  - (vi) A monthly summary of the throughput for the calendar year to date.
- (2) Any facility classified as exempt or claiming to be exempt shall meet the same record keeping requirements of this rule so as to be able to prove the exemption status.
- (F) Test Methods For Compliance Verification
  - (1) A violation determined by any one of these test methods shall constitute a violation of the rule.
    - (a) Vapor Tightness (Fugitive Vapor Leaks) for all equipment described in this rule, unless otherwise specified, shall be determined by EPA Method 21 - Determination of Volatile Organic Compounds Leaks.
    - (b) Vapor Recovery System Efficiency for Delivery Vessels shall be determined by the EPA Method entitled Control of Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems (method specified in the CTG EPA-450/2-78-051), or the CARB Method entitled, "Certification and Test Procedures for Vapor Recovery Systems of Gasoline Delivery Tanks".
    - (c) Reid Vapor Pressure shall be determined in accordance with ASTM Method D 323-82, and the true vapor pressure in psi absolute of stored liquid shall be determined by using the nomograph contained in American Petroleum Institute Bulletin 2517 for conversion of Reid vapor pressure to true vapor pressure.
    - (d) Vapor Recovery System Efficiency for Bulk Plants shall be determined by CARB Method 202, "Certification of Vapor Recovery Systems – Bulk Plants".
    - (e) Vapor Recovery System Efficiency for Terminals shall be determined by CARB Method 203, "Certification of Vapor Recovery Systems – Gasoline Terminals".
    - (f) Vapor Recovery System Efficiency for Service Stations shall be determined by the CARB Methods in "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations".

[Rule 462 - *Organic Liquid Loading*; Version in SIP = Current; 40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 60 FR 21702; Current Rule Version = 5/25/94]

17. The gasoline dispensing facility shall comply with the following requirements:

- (C) Basic Requirements
  - (2) Tanks With 150,000 Liters Or Less Capacity: The Owner/Operator shall not place, store or hold in any above-ground stationary tank, or other container of 150,000 liters (39,630) or less capacity any organic liquid having a true vapor pressure of 77.5 mm Hg (1.5 psia) or greater under actual storage conditions, unless such tank is equipped with a pressure-vacuum valve which is set to within ten percent of the maximum allowable working pressure of the container, or is equipped with a vapor loss control device described as follows. A fixed roof tank with a vapor recovery system consisting of a system capable of collecting all organic vapors and gases, and a vapor return or disposal system capable of processing such vapors and gases, so as to prevent their emission to the atmosphere at an efficiency of at least 95 percent by weight.

(3) Additional Requirements

- (a) All of the components of a facility including but not limited to tanks, flanges, seals, pipes, pumps, valves, meters, connectors, shall be maintained and operated so as to prevent fugitive vapor leaks, fugitive liquid leaks, and excess organic liquid drainage during transfer, storage and handling operations.
- (b) Efficiency, as used in Subsections (C)(1)(c) and (c)(1)(d) means a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Base line emissions shall be calculated by using the criteria outlined in American Petroleum Institute Bulletin 2518.
- (c) The roof of any internal or external floating roof tank is to be floating on the liquid at all times (i.e. free of the roof leg supports) except when the tank is being completely emptied for cleaning, or repair. The process of emptying, and/or refilling, when the roof is resting on the leg supports, shall be continuous and shall be accomplished as rapidly as possible, and: If the tank has been gas-freed and is to be refilled with gasoline, the roof shall be refloated with water, or equivalent procedure approved by the APCO.

(D) Record Keeping and Recording

- (1) The Owner/Operator whose tanks are subject to this rule shall keep an accurate record of liquids stored in such containers and the true vapor pressure ranges of such liquids, or other criteria approved by the APCO.
- (2) Organic liquids listed on the addendum to this rule shall be deemed to be in compliance with the appropriate vapor pressure limits for the tank in which it is stored provided the actual storage temperature does not exceed the corresponding maximum temperature listed.
- (3) The Owner/Operator shall maintain a log of all inspections, repairs and maintenance on equipment subject to this rule. Such a log or records shall be maintained at the facility for at least 2 years and shall be made available to the APCO upon request.

(H) Compliance Verification Test Methods

- (1) Vapor Pressure shall be determined in accordance with ASTM Method D 323-82, or the unmodified Reid Method and the true vapor pressure in psi absolute of stored liquid shall be determined by using the nomographs contained in American Petroleum Institute Bulletin 2517 for conversion of Reid vapor pressure to true vapor pressure.
- (2) Vapor Tightness (Fugitive Vapor Leaks) for all equipment described in Section (C) shall be determined by EPA Method 21 - Determination of Volatile Organic Compounds Leaks.
- (3) Vapor Tightness for delivery vessels shall be determined by the EPA Method entitled Control of Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems (method specified in the CTG EPA-450/2-78-051), or the CARB Method entitled, "Certification and Test Procedures for Vapor Recovery Systems of Gasoline Delivery Tanks".
- (4) Vapor Tightness for bulk plants shall be determined by CARB Method 202, "Certification of Vapor Recovery Systems - Bulk Plants".
- (5) Vapor Tightness terminals shall be determined by CARB Method 203, "Certification of Vapor Recovery Systems - Gasoline Terminals".



- (6) Vapor Tightness for service stations shall be determined by the CARB Methods in "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations".

[Rule 463 - *Organic Liquid Storage*; Version in SIP = Current; 40 CFR 52.220(c)(191)(i)(C) 05/03/95 60 FR 21702; Current Rule Version = 11/02/92]

PART III  
EQUIPMENT SPECIFIC APPLICABLE REQUIREMENTS; EMISSIONS  
LIMITATIONS; MONITORING, RECORDKEEPING,  
REPORTING AND TESTING REQUIREMENTS; COMPLIANCE  
CONDITIONS; COMPLIANCE PLANS

**A. EQUIPMENT DESCRIPTION:**

**1. ROTARY KILN DRYER NO. 1 LANTHANUM - MDAQMD PERMIT # B000383:**

Dryer of 4 ft in diameter and 42 ft long and whose heat input rating is 5.85 million Btu/h  
RD-3 Drive Motor

F-22 Combustion Air Fan

F-23 Combustion Air Fan

VPH-102 Burner Oil Pump

DPH-72 Vacuum Filtrate Pumps, 2 each @ 5 hp

SC-16 Screw Conveyor, 1 ft by 10 ft long

Dryer Feed Screw

SC-17 Screw Conveyor

BE-9 Bucket Elevator, 2.5 ft by 40 ft long

S-3 Sweco Screen, 48 inches

BS-13 Storage Bin, 8,750 gal

BS-14 Storage Bin, 8,750 gal

HM-3 Hammer Mill

Belt Filter

Wash Pump

Filter Belt

Fee Calculation = 5.85 million Btu/h + (2550 Btu/h/hp x 85.83 hp) = 6.07 million Btu/h

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit number C000384.

**2. ROTARY KILN DRYER – NO. 2 LANTHANUM – MDAQMD PERMIT # B000385:**

Dryer, 6.5 ft in diameter by 38 ft long whose firing rate is 5.0 million Btu/h

RD-4 Drive Motor

F-26 Combustion Air Blower (Hawk)

SC-18 Screw Conveyor, 1 ft by 10 ft long

SC 19 Screw Conveyor, 1 ft by 10 ft long  
BE-10 Bucker Elevator, 2.5 by 40 ft long  
HM-1 Hammer Mill  
S-4 Sweco Screen, 48 inches  
BS-15 Storage Bin, 8,750 gal capacity  
EPF-5 Product Drum Filter  
DHP-70 Vacuum Receiver Filtrate Pump  
Sump  
Sump Pump  
VHP-68 Dryer Burner Oil Pump  
Dryer Feed Screw  
Product Drum Filter Agitator  
Sump Pump to No. 1 Lanthanum Thickener  
Fee Calculation:  $5.0 \text{ million Btu/h} + (2550 \text{ Btu/h/hp} \times 65 \text{ hp}) = 5.16 \text{ million Btu/h}$

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit number C000838.

**3. NO. 2 LANTHANUM – BULK LOADING – MDAQMD PERMIT # B000825:**

SC-825 Screw Conveyor, 1 ft by 10 ft: 3 hp

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit number C001789.

**4. SODA ASH SYSTEM – CHEMICAL PLANT – MDAQMD PERMIT # B000842:**

SC-14 Screw Conveyor, 3 inch in diameter and 6 ft long, @ 5 hp  
Explosion Proof Vents, 2  
Soda Ash Storage Bin, @ 10,000 gal  
TSR-29 Soda Ash Mix Tank, @ 700 gal and 2 hp mixer drive

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.

ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. Materials processed by equipment delineated above shall contain sufficient and/or added moisture to ensure compliance with District rules 401 and 403. Sufficient water and equipment in operable condition shall be maintained on-site and used as necessary to ensure compliance with these rules.
2. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit number C003205.

5. **CRUSHING PLANT NO. 3 – MDAQMD PERMIT # B000846:**

This plant is rated at 420 ton/h at maximum continuous conditions  
200-H-1 Dump Hopper – 100-ton capacity  
200-AF-1 Drop Chute, 6 ft by 16 ft  
1211 Svedada Jaw Crusher, 44” x 48”  
Svedala 48” x 24’ Vibrating Grizzly Feeder  
Product Delivery Conveyor 42” x 24’  
Product Delivery Conveyor 42” x 24’  
Product Delivery Conveyor 30” x 90’  
200-C-1 Primary Crusher Discharge Conveyor, 42” by 311’  
200-FG-1 Feed Chute, with flopgate  
200-TS-1 Product Screen No. 1, 5ft by 16 ft  
200-C-2A Tertiary Feed Conveyor, 30” by 171’  
200-C-2C Oversize Collection Screen Conveyor, 42” x 40’  
200-C-4 Product Conveyor, 30” x 45.5’  
200-TS-2 Product Screen No. 2, 5 ft by 16 ft  
200-C-2D Secondary Crusher Feed Conveyor, 30” by 138’  
200-H-2 Secondary Crusher Surge Hopper, 25 ton capacity  
200-HC-1 Secondary Hydro-Cone Crusher  
200-C-2 Secondary Crusher Discharge Conveyor, 30” x 49’  
200-C-3 Secondary Crusher Discharge No. 2, 36” x 252’  
200-H-3 Tertiary Crusher Surge Hopper – 25 ton capacity  
200-C-2B Tertiary Crusher Feed Conveyor, 3ft by 14 ft with variable speed  
200-TC-1 Tertiary Crusher Impactors, 2 Barmacs, motors each at 250 hp  
200-C-5 Stacker Conveyor, 30 in by 148 ft  
Stacker Lift  
Stacker Traverse

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. Materials processed by equipment delineated above shall contain sufficient and/or added moisture to ensure compliance with District rules 401, 402 and 403. Sufficient water and equipment in operable condition shall be maintained on-site and used as necessary to ensure compliance with these rules.
2. This equipment shall not be operated unless vented to properly functioning baghouses under valid District permit numbers C002697 and C002698.

**6. SX TANKS – LANTHANIDE PROCESS – PERMIT # B001936:**

SX-1-35 Extraction cells, 35, whose total volume is 24,000 gal, one stream feeds La precipitation and the others feed SX-2, 10 @ 3hp each and 24 @ 2 hp each.

Note also that the above SX-1-35 is also fed by the HCl tank (T000834) and the filtrate from Pb thickener (part of T001938 and T001939). SX-1-35 vents to Viron Scrubber (C001935).

SHP-48 Pregnant Liquor Pump

SX-1 Transfer Tank, Barium Organic Tank (36-38), 500 gal

SX-2-18 Extraction cell, 18, whose volume is 16,000 gal is fed by SX-1-35 are 11 @ 2 hp each and 7 @ 1.5 hp each SX-2 is also fed by the HCl tank (T000834)

36-38 Barren Organic Sump, 500 gal

Barren Organic Pump

TF-20 SX-1 Organic make-up tank, 500 gal

SHP-64-1 Organic Transfer Pump

Organic Reclaim Pump

Neutralization Feed Pump, 2 @ 2 hp each

TF-23 SX-1 Organic Storage Tank, 10,000 gal

Aqueous Return Pump

Organic Return Pump

SX-2 Organic Make-up Tank @ 150 gal

SHP-64-2 Organic Transfer Pump

Feed Neutralization Tank and agitator

Neutralization Tank Feed Pump

Feed Neutralization Tank and agitator

Storage Tank Feed Pump

Organic Storage Tank Pump

TF-26 SX-2 Organic Storage Tank @ 5,000 gal

TF-27 SX-2 Feed Storage Tank @ 16,500 gal

Storage Tank Feed Pump

Hydroxylamine Tank and agitator

SX-2 Make-up Tank and pump

SX-2 2SX-1-36, 16,000 gal and mixers; 4 @ 5 hp each and 32 @ 2 hp each

Cell 7 bleed stream

Aqueous Return Pump

Barren Organic Pump

TF-38 Barren Organic Sump, 500 gal

SHP-62 Pregnant Pump

NOTE: SX-2 vents to Viron Scrubber (C001934) and feed the Nd extraction process, feeds the La precipitators (B001947) in concert with SX-1 and bleeds off organic barren material into the organic barren sump (TF-38) and the organic material is re-pumped into SX-1-18.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. The equipment shall not be operated unless it is vented to functioning scrubbers under valid District permits C001934 and C001935.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

7. **LANTHANUM PRECIPITATION PROCESS – MDAQMD PERMIT # B001947:**

Six Tanks of 3000 gal each and their associated agitators and motors

A-1 Lanthanum Precipitation Tank, with agitator

A-2 Lanthanum Precipitation Tank, with agitator

A Lanthanum Precipitation Overflow Pump

Surge Tank, 4000 gal

Transfer Pump, 2 @ 5 hp each

B-1 Lanthanum Precipitation Tank, with agitator

B-1 Lanthanum Precipitation Tank, with agitator

B Lanthanum Precipitation Overflow Pump

C-1 Lanthanum Precipitation Tank, with agitator

C-1 Lanthanum Precipitation Tank, with agitator

C Lanthanum Precipitation Overflow Pump

30 ft diameter, No. 1 Lanthanum Thickener, 85,000 gal

No. 1 Lanthanum Thickener Agitator

30 ft diameter, No. 2 Lanthanum Thickener, 85,000 gal

No. 2 Lanthanum Thickener Agitator

No. 2 Thickener Overflow Pump

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. Any modifications and/or substantial changes to the design of the equipment listed above, which causes a change in the emissions to the atmosphere shall be submitted to the District for approval prior to the changes.

8. **PACKAGING MACHINE FOR NO. 1 LANTHANUM DRYER SYSTEM –  
MDAQMD PERMIT # B002832:**

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This equipment shall not be operated unless it is vented to properly functioning baghouse under valid District permit C002594.
2. The mass throughput of this unit shall be limited to 11,250 lb/h, which is based on a maximum sling bag weight of 1500 lb.

9. **DRYER – CHEMICAL PLANT RIBBON BLENDER – MDAQMD PERMIT #  
B003259:**

An electrical dryer, which is 4 ft in diameter by 12 ft long, 75 hp.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier.

10. **NEO CARB/NEO CARB FLUORIDE CIRCUIT – MDAQMD PERMIT # B004087:**

Pregnant Liquor Storage Tanks, 2 @ 2300 gal each  
Pregnant Liquor Transfer Pumps, 2 @ 2 hp each  
Neodymium Carbonate Fluoride Tank, with agitator  
Neodymium Carbonate Tank Transfer Pump  
Neodymium Carbonate Fluoride Tank, with agitator  
Product Filter Drum  
Product Filter  
Product Rake  
Vacuum Receiver  
Filtrate Pump

TSP-039 Neodymium Carbonate Precipitate Tank, 1000 gal with agitator  
TSP-040 Neodymium Carbonate Precipitate Tank, 1000 gal with agitator  
TSP-041 Neodymium Carbonate Precipitate Tank, 1000 gal with agitator  
LHP-44 Feed Pumps, 2 each @ 20 hp  
Precipitator Tank Transfer Pump  
Thickener Tank, 9000 gal with rake  
Product Filter Drum  
Product Filter Agitator  
Product Filter  
Vacuum Receiver  
Effluent Transfer Pump

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**11. NO. 2 SODA ASH FEED PROCESS – MDAQMD PERMIT # B004090:**

Soda Ash Storage Bin, 10,000 gal  
Total hp = 10.  
Screw Conveyor, 5 hp  
Steam Heat Exchanger, and  
Slurrier and Transfer Pump, 5 hp

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. This equipment shall not be operated unless it is vented to a functioning baghouse covered by valid District permit C004089.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

**12. PURIFICATION PROCESS – EUROPIUM – MDAQMD PERMIT # B004371:**

The following is located at the chemical Plant

SX-1 Pregnant Trap Tank, 2000 gal



Initial Neutralization Tank, with agitator, 200 gal  
SX-1 Pregnant Storage Tanks, 2 @ 8800 gal each  
Transfer Pump  
Neutralization Tank, with agitator, 3000 gal  
Transfer Pump, P-1  
Head Tank, D-309, @ 500 gal  
Jones Reductor, C-1406, with Fan  
Feed Tote, 600 gal  
Slave, 220 gal  
Tank, C-1402, @ 750 gal  
2 Filters, T-1402  
Mixing Tank, C-1404 @ 250 gal, with agitator  
Filter, T-1406  
2 Diss Tanks, @ 300 gal each, with agitators  
Transfer Pump, P-2  
Exchange Column, C-411  
Inline Filter, T-1401  
D. Water Tank, 50 gal  
Reaction Vessel, 300 gal, with agitator  
Primary Filter, T-1411  
Secondary Filter, T-1411  
Transfer Pump  
Recycle Diss. Tank, with agitator  
3 Precipitation Tanks, each @ 300 gal and each with agitator  
Exhaust Fan  
Product Filter

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. This equipment shall not be operated unless it is vented to a functioning Scrubber covered by valid District permit C004711, Baghouse under valid District permit C004710, and Vapor Recovery System under valid District permit C001934.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**13. LEACH CIRCUIT – FLOATATION PLANT – MDAQMD PERMIT # B004933:**

3 Leach Tanks, each 8 ft diameter by 14 ft high, with agitators, 10 hp each  
pH Adjustment Tank, each 8 ft diameter by 14 ft high, with agitator  
Leach Tank, 30 ft diameter by 8 ft high, with rake  
Precipitation Reactor Tank, 8 ft diameter by 14 ft high, with agitator

Floc Tank, 3 ft diameter by 3 ft high, with agitator  
Leach Thickener, 15 ft diameter by 8 ft high, with rake drive

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. This equipment shall not be operated unless vented to properly functioning fume scrubber under valid District permit C005098.
2. This equipment shall be operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering practices consistent with minimum emissions of contaminants.

**14. FLOTATION REAGENT HANDLING SYSTEM – MDAQMD PERMIT # B008263:**

Granular Ultrazine reagent unloading, handling and delivery system (to the conditioning tanks under permit B002827) located within the southwest corner of the Magnetic Separation Building. This unit will handle a maximum of 350 lbs per hour of reagent.

Receiving Hopper  
Rotary Valve (0.75hp)  
Slipstick Conveyor (3hp)  
Enclosed Feed Hopper  
Screw Feeder (0.25 hp)

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77:

1. This equipment shall not be operated unless vented to functioning baghouse under valid District permit C008264.
2. The owner/operator shall operate this equipment in strict accord with the manufacturer's specification and/or sound engineering principles.
3. This equipment shall not handle more than 350 lbs of reagent per hour or 900 tons of reagent per year.
4. The owner/operator shall maintain a log current and on-site of all reagent added to this system, including the date added and a running calendar year (in tons). This log shall be provided to District personnel on request.

**15. BAGHOUSE – NO. 1 LANTHANUM ROTARY KILN DRYER – MDAQMD PERMIT # C000384:**

A Mikro-Pulsaire, model 144 TR, with the following specifications:

Bags: 122, Gortex over Nomex, 4.5 in ID by 10 ft;

Flowrate: 4800 ACFM at 325 degrees Fahrenheit, by 50 hp motor driven fan at ambient pressures;

Total Cloth Area: 135 sq ft;

Air to Cloth Ratio: 3: 1;

Pressure Differential across Bags: 3-6 in water gauge.

There is a LDC-3 Luzan dust collector Star Valve, 1/4 hp with F-25 50 hp ID fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This baghouse shall operate concurrently with the equipment described as the No. 1 Lanthanum Rotary Kiln Dryer under valid District permit B000383.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**16. BAGHOUSE –MDAQMD PERMIT # C000700:**

Manufactured by Hoffman Products, operating at 350 deg F, with 25 5.75" by 88" bags and a 20 hp exhaust fan (385 acfm), producing an a/c ratio of 4.9 to 1. The unit vents through a 6" diameter, 65' tall stack and is equipped with a rotary airlock (0.5 hp), Sweco screen (0.33 hp), and a screw conveyor (1.5 hp). This unit serves the Gadolinium Oxide Packaging Unit (B000698, B004027).

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This unit shall operate concurrently with equipment described in District permits B000698 and B004027.
2. The owner/operator (o/o) shall maintain on-site, as a minimum, an inventory of replacement bags that assures compliance with applicable Rules of District Regulation IV.
3. The o/o shall maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier and sound engineering principles.
4. The o/o shall log preventive maintenance, repairs, replacements and inspections and maintain the log on-site a minimum of five years and provided to District personnel on request.

**17. BAGHOUSE – NO. 2 LANTHANUM ROTARY KILN DRYER – MDAQMD PERMIT # C000838:**

A Mikro-Pulsaire, model 168 TR, with the following specifications:

Bags: 144, Gortex over Nomex, 4.5 in ID by 10 ft;

Flowrate: 5800 ACFM at 325 degrees Fahrenheit, by 15 hp motor driven fan at ambient pressures;

Total Cloth Area: 159 sq ft;

Air to Cloth Ratio: 3 : 1;

Pressure Differential across Bags: 3-6 in water gauge.

There is a rotary airlock, star valve @ 3/4 hp and LDC-4 Luzan dust collector Star Valve, 3/4 hp with F-28 40 hp ID fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This baghouse shall operate concurrently with the equipment described as the No. 2 Lanthanum Rotary Kiln Dryer under valid District permit B000385.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**18. BAGHOUSE – NO. 2 LANTHANUM HYDRATE PACKAGING SYSTEM – MDAQMD PERMIT # C001789:**

A Mikro-Pul, model 49-S, with the following specifications:

Bags: 49 Nomex on Polyester, 4.5 in ID by 10 ft;

Flowrate: 4000 ACFM, by 15 hp motor driven fan at ambient conditions;

Total Cloth Area: 577 sq ft;

Air to Cloth Ratio: 6 : 1;

Pressure Differential across Bags: 5-7 in water gauge.

There is a rotary airlock, star valve @ 1/4 hp and a 15 hp exhaust fan (EX-5).

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This baghouse shall operate concurrently with the equipment described as the No. 2 Lanthanum Hydrate Packaging System under valid District permit B000825.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;

b. Monthly visible emissions determinations, VEE results logged;  
c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.  
The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.

3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**19. VAPOR RECOVERY SYSTEM – SX TANK NO. 2 (CHEMICAL PLANT) – MDAQMD PERMIT # C001934:**

VS-2 ID Exhaust Fan @ 3340 ACFM, by a 7.5 hp fan;  
APC-SX-2 Viron Scrubber packed with 48 in of Munster Packing.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This vapor recovery system shall operate concurrently with the equipment under valid District permits B004371 and B001936.
2. The o/o shall operate and maintain this Vapor Recovery System in strict accord with the recommendations of the manufacturer/supplier.

**20. VAPOR RECOVERY SYSTEM – MDAQMD PERMIT # C001935:**

VS-1 ID Exhaust Fan @ 7570 ACFM, by a 15 hp fan;  
APC-SX-1 Viron Scrubber packed with 48 in of Munster Packing.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This vapor recovery system shall operate concurrently with the equipment described as the SX- 2 Process Tank at the Chemical Plant under valid District permit B001936.
2. The o/o shall operate and maintain this Vapor Recovery System in strict accord with the recommendations of the manufacturer/supplier.

**21. BAGHOUSE – NO. 1 LANTHANUM PACKAGING SYSTEM – MDAQMD PERMIT # C002594:**

A Mikro-Pulsaire, model 49S, with the following specifications:

Bags: 49, Nomex over Polyester, 4.5 in ID by 10 ft;

Flowrate: 4000 ACFM at ambient temperatures, by 15 hp motor driven fan;

Total Cloth Area: 577 sq ft;

Air to Cloth Ratio: 6: 1;

Pressure Differential across Bags: 5-7 in water gauge.

There is a LDC-6 Star Valve, 1.0 hp.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This baghouse shall operate concurrently with the equipment described as the No. 1 Lanthanum Packaging System under valid District permit B002832.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**22. BIN VENT – CHEMICAL PLANT SODA ASH SYSTEM – MDAQMD PERMIT # C003205:**

Mikro-Pulsaire, model 20S-10-30 "B" style with the following specifications:

Bags: 20;

Total Filter Area of Bags: 236 sq ft;

Flowrate: 1000 ACFM at 70 degrees Fahrenheit, ambient pressures;

Air to Cloth Ratio: 4.24: 1;

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This baghouse shall operate concurrently with the equipment described as the Soda Ash System under valid District permit B000842.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**23. BIN VENT – NO. 2 SODA ASH FEED PROCESS – MDAQMD PERMIT # C004089:**

a Mikro-Pulsaire, style with the following specifications:

Bags: 20, each at 4.5 ID by 10 ft long;

Total Filter Area of Bags: 236 sq ft;

Flowrate: 1000 ACFM at ambient conditions;

Air to Cloth Ratio: 4.24: 1.



PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This baghouse shall operate concurrently with the equipment described as the No. 2 Soda Ash Feed Process under valid District permit B004090.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**24. BIN VENT – PURIFICATION PROCESS – MDAQMD PERMIT # C004710:**

A Mikropuhl-Pulsaire, model 815-10-20TR"C" with the following specifications:  
81 total bags, each @ 8 inch ID and 10 ft long  
Total Cloth Area of 954 sq ft and  
An Air to Cloth Ratio of 5.25: 1

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This baghouse shall operate concurrently with the equipment described as the Purification Process (Europium) under valid District permit B004371.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:

a. Monthly visible emissions determinations, VEE results logged;  
b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.  
The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.

3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**25. CAUSTIC SCRUBBER – PURIFICATION PROCESS – MDAQMD PERMIT # C004711:**

A unit by Duall Division of Met Pro Corporation, model HMPT-45 with the following specifications:

5000 ACFM @ ambient conditions,  
25 hp exhaust fan, 1/2 hp sump pump,  
7.5 hp sump pump and  
A 2 hp wastewater pump.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

1. This scrubber shall operate concurrently with the equipment described as the Purification Process under valid District permit B004371 and Baghouse under valid District permit C004710.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the scrubber;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Water pressures, flow rates, and pH.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.

3. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
4. The o/o shall operate and maintain this scrubber in strict accord with the recommendations of the manufacturer/supplier.

**26. BAGHOUSE (FLOTATION REAGENT HANDLING) – MDAQMD PERMIT # C008264:**

An integral twin cartridge filter air pollution device serving the Flotation Reagent Handling System (B008263), equipped with a 5 hp fan generating 1100 acfm. This filtration unit is equipped with two National Bulk Equipment or equivalent 26" L x 12" D cylindrical filter cartridges (~13.6 sq ft of filter area for an air to cloth ratio of 81:1). See diagrams 40-101-G-01 and -04.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The owner/operator (o/o) shall install, operate and maintain this dust collector in strict accord with those recommendations of the manufacturer/supplier, and sound engineering principles which produce minimum emissions of air contaminants.
2. The o/o shall institute a program of maintenance which embraces at least weekly visible emission determinations and monthly visual inspections of all associated equipment (inclusive of the filters and their suspension systems).
3. The o/o shall log all the items in 2 above in addition to the cartridge replacements, repairs and non-scheduled maintenance. The log shall be kept current, on-site for a minimum of five (5) years and provided to District personnel on request.
4. The o/o shall maintain an inventory of replacement filter cartridges on-site at all times which will ensure compliance with applicable Rules of District Regulation IV.
5. This baghouse shall operate concurrently with the Flotation Reagent Handling System under valid District permit number B008263, specifically including during the loading of the receiving hopper with reagent.
6. This baghouse shall discharge no more than 0.094 lb/hour at a maximum concentration of 0.01 gr/dSCF at the operating conditions described in the above description.
7. This equipment does not require a regularly scheduled emission compliance test. However, emission compliance testing may be required at the discretion of the District.

**27. SOLVENT STORAGE – SPECIALTY PLANT – MDAQMD PERMIT # T001943:**

A steel tank, TS-75, which is used for kerosene. 11,000 gal

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This tank shall be limited to storing kerosene, which is to be used as a chemical extractant and NOT as a fuel.

***PROCESS: 1 CRUSHING PLANT/CEMENT LOADOUT & STORAGE***

**28. CONCENTRATE DRYER NO. 1 – MDAQMD PERMIT # B000819:**

Burner, 2 MMBTU/HR  
Sweco Screen, 48", 8 mesh, Single-stage  
Bucket Elevator, 58" high - 4" x 6" buckets  
Sample Valve  
Dryer Discharge Screw Conveyor, 9" x 30'  
Rotary Kiln Concentrate Dryer #1:  
East-West Screw Conveyor, 9" x 30'  
Oil Feed Pump  
Total Equivalent =  $2.2 \times 10^6$  btu/hr  
Drive Motor  
Driver Feed Conveyor, 24" x 75'  
Truck Feed Transfer Conveyor, 24" x 10'  
Truck Feed Conveyor, 18' x 15"  
 $2.0 \text{ MMbtu/hr} + [61.5 \text{ hp} \times 2550 \text{ btu/hr/hp}] = 2.157 \text{ MMbtu/hr}$

Combustion Air Blower

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless it is vented to functioning baghouses covered by valid District permits C002375 and C003999.

2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

**29. BAGHOUSE – PRIMARY CRUSHER – MDAQMD PERMIT # C002697:**

A Mikro-Pulsaire, model 200-DC-1, with the following specifications:

Flowrate: 6350 ACFM at 0-100 degrees Fahrenheit, by 20 hp motor driven fan at ambient pressures;

Total Cloth Area: 1270 sq ft;

Air to Cloth Ratio: 5: 1;

There is a 1.0 hp Star Valve.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 3 Crushing Plant under valid District permit B000846.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**30. BAGHOUSE (SCREENING TOWER #3 CRUSHING PLANT) – MDAQMD PERMIT # C002698:**

A Mikro-Pulsaire, Model 200-DC-2, with the following specifications: Flowrate 27,350 ACFM at 0-100 deg F, by 75 hp motor driven fan at ambient pressures; Total Cloth Area: 5470 sq ft; Air to Cloth Ratio: 5 to 1; There is a star valve @ 1 hp and a 2 hp screw conveyor.

This unit serves the #3 Crushing Plant (B000846) as shown on diagram 19-002-F-60.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 3 Crushing Plant under valid District permit B000846.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**31. CEMENT AND AGGREGATE LOADOUT SYSTEM – MDAQMD PERMIT # B000375:**

375-1 Cement Screw, 1 ft by 10 ft

375-2 Conveyor Belt for aggregate cement load out to mix truck, 2.5 ft by 30 ft

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum of emissions.
2. Materials processed by equipment delineated above shall contain sufficient and/or added moisture to ensure compliance with District rules 401 and 403. Sufficient water and equipment in operable condition shall be maintained on-site and used as necessary to ensure compliance with these rules.

**32. CEMENT SILO – MDAQMD PERMIT # T000374:**

A unit 10 ft in diameter by 20 ft high. This unit is equipped with a pneumatic fill system and vents to baghouse, under District permit C004615. For Fee purposes, the volume of this silo is 11,750 gal.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless it is vented to a functioning baghouse covered by valid District permit C004615.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

**33. BIN VENT – CEMENT SILO – MDAQMD PERMIT # C004615:**

A Mikro-Pulsaire, model 165-10-30B with the following specifications:

Total Bags: 16

Bag dimensions: 4.5-inch diameter by 10 ft long

Total Filter Area of bags: 188 sq ft

Operation: at ambient pressure and temperature.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Cement Silo under valid District permit T000374.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

### ***PROCESS: 2 MILL/FLOATATION PLANT***

#### **34. NO. 2 CRUSHED ORE STORAGE BIN – MDAQMD PERMIT # T000824:**

A Belt Conveyor, with 50 hp drive motor;  
Ore Storage Bin, 390,000 gal capacity: and a  
Dump Hopper, capacity 200 ton. Note: For fee purposes this unit has a volume of 390,000 gallons.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum of emissions.
2. Materials processed by equipment delineated above shall contain sufficient and/or added moisture to ensure compliance with District rules 401, 402 and 403. Sufficient water and



equipment in operable condition shall be maintained on-site and used as necessary to ensure compliance with these rules.

**35. GRINDING MILL FEED NO 2 – MDAQMD PERMIT # B000823:**

C-7 Transfer Belt conveyor, 30 in by 40 ft: 10 hp  
C-8 Transfer Belt conveyor, 30 in by 40 ft: 10 hp  
C-9 Transfer Belt conveyor and weightometer: 7.5 hp  
BM-2 No. 2 Ball Mill, 12.5 ft by 16 ft, @ 1000 ton/h with head pump: 150 hp  
CY-2 Cyclone, 20 in by 7 ft  
Total hp: 177.5

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum of emissions.
2. Materials processed by equipment delineated above shall contain sufficient and/or added moisture to ensure compliance with District rules 401, 402 and 403. Sufficient water and equipment in operable condition shall be maintained on-site and used as necessary to ensure compliance with these rules.

**36. SODA ASH TREATMENT SYSTEM – MDAQMD PERMIT # B002827:**

Weslig Mix Tank, 10 ft diameter by 38.75 ft  
SA-6 Reagent Flocculant Mix Tank, 4 ft diameter by 4 ft; 376 gal  
SA-7 Discharge Pump to Conditioners  
SA-2 Soda Ash Mix Tank, 10 ft diameter by 10 ft high; 3875 gal  
SA-4 Weslig Mix Tank, 10 ft diameter by 10 ft high, 5875 gal  
P-25 Storage Tank, 8.5 ft diameter by 24 ft  
P-25 Day Tank  
SA-3 Discharge Pump to Conditioners  
SA-5 Discharge Pump to Conditioners  
Feeder Tank  
6 Conditioners, each at 6 ft diameter by 9 ft high; 1900 gal

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This system shall be operated aqueously at all times to ensure compliance with the applicable rules of District Regulation IV.
2. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier.
3. The conditioner tanks in this system may accept solid (powder) reagents from the reagent handling process operating under valid District Permit B008263.

**37. SODA ASH STORAGE TANK – MDAQMD PERMIT # T002826:**

Storage Tank, 152,100 lb of Soda Ash, which is equivalent to 20,727 gal  
Soda Ash Transfer Conveyor, 11.5 in wide by 12 ft long and  
Blower, 1/3 hp  
For Fee purposes, this unit is 2,727 gallons.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C003203.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**38. BIN VENT – SODA ASH STORAGE TANK – MDAQMD PERMIT # C003203:**

A Mikro-Pulsaire, model 20S-10-30 "B" style with the following specifications:  
Bags: 20  
Total Filter Area of Bags: 236 sq ft  
Flow rate: 1000 ACFM at 70 degrees Fahrenheit, ambient pressures;  
Air to Cloth Ratio: 4.24: 1

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Soda Ash Storage Tank under valid District permit T002826.

2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**39. ROUGHER FLOATATION SYSTEM – MDAQMD PERMIT # B002828:**

RD Cells Nos. 1-12, each with a 30 hp agitator; 5386 gallons  
RD Cells Nos. 12-24, each with a 30 hp agitator; 5386 gallons  
Air Blowers, @ 1 to each of the above cell systems, 20 hp each  
First Rougher Cleaner (1-7), 2618 gallons  
Final Rougher Cleaner (1-8), 2992 gallons  
Hi Grade Unleach Thickener, 40 ft by 11.25 ft diameter; 101,050 gallons  
Sump Main discharge Pumps, 3 @ 100 hp each  
Lo Grade Unleach Thickener, 40 ft by 12 ft diameter; 108,100 gallons  
Discharge Pump from Leach Thickener to Tails Sump  
Nash Vacuum Pump  
Sutobilt Vacuum Pump  
No. 1 Concentrate Filter, 8 ft diameter by 6 ft, 200 gallons  
No. 2 Concentrate Filter, 8 ft diameter by 6 ft, 200 gallons

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This system shall be operated aqueously at all times to ensure compliance with the applicable rules of District Regulation IV.
2. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier.

3. The owner/operator, o/o, shall log the pH values on an hourly basis. This log shall be kept current, on-site for a minimum of 5 years and provided to District personnel on request.

**40. SCRUBBER NO. 1 – LEACH CIRCUIT (FLOATATION PLANT) – MDAQMD PERMIT # C005098:**

A unit manufactured by DEI Systems, Inc., model 4-PBS-5. The dimensions of this unit are 4 ft diameter by 8 ft high. This unit operates at ambient conditions, with a 10 hp motor/fan pulling 4000 ACFM through it.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This scrubber shall operate concurrently with the equipment described as the Leach Circuit (located in the Floatation Plant) under valid District permit B004933.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the scrubber;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Weekly water pressures, flow rates, and pH.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
4. The o/o shall operate and maintain this scrubber in strict accord with the recommendations of the manufacturer/supplier.

**41. STORAGE TANK – HCL FOR MILL – MDAQMD PERMIT # T000835:**

A 20,000-gallon capacity tank

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be used unless it is vented to the scrubber delineated under valid District permit C000325.

**42. SCRUBBER – HCL – MDAQMD PERMIT # C000325:**

A Custom made, 12 in diameter by 72 in high and packed with plastic scrubbing pads. This unit collects the emissions of HCl from storage tanks described on District permit T000835.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. Any modifications and/or substantial changes to the design of the equipment listed above, which causes a change in the emissions to the atmosphere shall be submitted to the District for approval prior to the changes.
2. This unit shall operated concurrently with the use of the storing tanks delineated on District permit T000835. Operation of this unit shall be consistent with sound engineering principles, which produce the minimum emissions of HCl.

**43. BAGHOUSE – NO. 1 CONCENTRATE DRYER – MDAQMD PERMIT # C002375:**

A Mikro-Pulsaire, model 168-5-10-TR, with the following specifications:

Bags: 168 Gortex 4.5 in ID by 10 ft;

Flowrate: 8300 ACFM at 240 degrees Fahrenheit, by 10 hp motor driven fan at ambient pressures;

Total Cloth Area: 1979 sq ft;

Air to Cloth Ratio: 3.86: 1;

There is a rotary airlock, star valve @ 1/4 hp and Dry Cyclone Dump Valve, 1/4 hp with F-28 40 hp ID fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 1 Concentrate Dryer under valid District permits B000819 and B000821.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:

- a. Weekly readings and recording of the pressure differential across the bags;
- b. Monthly visible emissions determinations, VEE results logged;
- c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.

The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.

Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.

3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**44. PACKAGING SYSTEM – NO. 1 CONCENTRATE (AT FLOATATION PLANT) – MDAQMD PERMIT # B000821:**

No. 1 Concentrate Bin, 12 ft in diameter and 19 ft high  
No. 2 Concentrate Bin, 12 ft in diameter and 16 ft high  
No. 3 Concentrate Bin, 12 ft in diameter and 16 ft high  
No. 4 Concentrate Bin, 14 ft in diameter and 20 ft high  
No. 1 Screw Conveyor, 1 ft in diameter by 15 ft long; 3 hp  
No. 2 Screw Conveyor, 1 ft in diameter by 15 ft long; 3 hp  
No. 3 Screw Conveyor, 10 inch in diameter by 10 ft long; 3 hp  
No. 4 Screw Conveyor, 10 inch in diameter by 10 ft long; 2 hp  
Sampler, 0.75 hp  
Net Weight Scale; 2 hp  
Bagger, 8 hp  
Closer, 0.75 hp  
No. 1 Gravity Conveyor  
No. 2 Pacer Conveyor, 1 hp  
No. 3 Reject Conveyor, 1 hp  
No. 4 Conveyor, 1 hp  
No. 5 Conveyor, 3 hp  
No. 6 Conveyor, 1 hp

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouses covered by valid District permits C000376, C002375 and C004343.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

**45. BAGHOUSE – NO. 1 PACKAGING MACHINE (MILL) – MDAQMD PERMIT # C000376:**

A Mikro-Pul, model 49-S-10, with the following specifications:

Bags: 49 Nomex, 4.5 in ID by 10 ft;

Flow rate: 4000 ACFM, by 15 hp motor driven fan at ambient conditions;

Total Cloth Area: 577 sq ft;

Air to Cloth Ratio: 6 : 1;

Pressure Differential across Bags: 5-7 in water gauge.

There is a rotary airlock, star valve @ 1/4 hp.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Packaging Machine under valid District permit B000821.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**46. BAGHOUSE – NO. 1 CONCENTRATE – MDAQMD PERMIT # C004343:**

A unit by Fabric Filter Air Systems, Inc., model 49-10, which serves the No. 1 Concentrate Dryer and Packaging System, with the following specifications:

Number of Bags: 45

Bag Dimensions: 4.5-inch diameter by 10 ft

Air to Cloth Ratio: 6.2:1

Flow rate: 3560 ACFM @ ambient temp/press, by a 10 hp fan thru a 16 in diameter stack 10 ft high.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 1 Dryer and Packaging System under valid District permits B000821 and T004939.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**47. HOPPER – MDAQMD PERMIT # T004939:**

A 125 cu ft hopper used to repackage Bastnasite concentrate into slings at the Floatation Plant.



PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit number C004343.
2. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier.

**48. CONCENTRATE STORAGE BIN – MDAQMD PERMIT # T004095:**

A bin known as No. 1 EAST, 204, which is located at the Floatation Plant and is 15 ft in diameter and 15.5 ft high and whose capacity is 133 ton.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C004097.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**49. BIN VENT – NO. 1 204 CONCENTRATE STORAGE BIN – MDAQMD PERMIT # C004097:**

A Mikro-Pulsaire, style with the following specifications:

Bags: 20

Total Filter Area of Bags: 236 sq ft;

Flow rate: 1000 ACFM at 70 degrees Fahrenheit, ambient pressures;

Air to Cloth Ratio: 4.24: 1

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 1 204 Concentrate Storage Bin under valid District permit T004095.

2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**50. CONCENTRATE STORAGE BIN – MDAQMD PERMIT # T004096:**

A unit known as No. 2 WEST, 204 and has the dimensions of 15 ft by 15.5 ft, is located at the Flootation Plant and has a capacity of 133 ton.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C004098.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**51. BIN VENT – NO. 2 204 CONCENTRATE STORAGE BIN – MDAQMD PERMIT # C004098:**

A Mikro-Pulsaire, model 20S-10-30 "B" style with the following specifications:

Bags: 20;

Total Filter Area of Bags: 236 sq ft;

Flow rate: 1000 ACFM at ambient conditions;

Air to Cloth Ratio: 4.24: 1

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 2 204 Concentrate Storage Bin under valid District permit T004096.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**52. BOILER – MDAQMD PERMIT # B000382:**

A Babcock and Wilcox type FM, Integral Furnace, 1000 hp whose maximum firing rate on fuel oil is 48.0 million Btu/h. This unit is equipped with the following ancillary equipment:

No. 1 Fuel Oil Pump, 3.0 hp;

No. 2 Fuel Oil Pump, 3.0 hp;

No. 1 Feed Water Pump, 40.0 hp;

No. 2 Feed Water Pump, 40.0 hp;

Induction Air Blower, 20.0 hp.

The total hp of the ancillary equipment is 106.0

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier.
2. The sulfur concentration of the fuel oil used in this boiler shall not exceed 0.5% on a weight per weight basis.
3. The facility may operate this boiler using No. 2 diesel fuel oil in lieu of No. 4 fuel oil.

### ***PROCESS: 2A – MILL/FLOATATION PLANT***

#### **53. STORAGE TANK- FEED TO ROD MILL NO. 1 – MDAQMD PERMIT # T002830:**

FP-1 Ore Bin, which is 26 ft in diameter and 32 high, giving a capacity of 127,080 gal;  
and  
Belt Conveyor, 30 in wide by 100 ft long (no motor)

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The owner/operator, o/o, shall restrict the feed rate from this storage bin to 35 ton per hour.
2. Materials processed by equipment delineated above shall contain sufficient and/or added moisture to ensure compliance with District rules 401, 402 and 403. Sufficient water and equipment in operable condition shall be maintained on-site and used as necessary to ensure compliance with these rules.

### ***PROCESS: 3 – 15% AQUA AMMONIA SYSTEM (PERMITS ARE INACTIVE)***

### ***PROCESS: 4 – SEPARATIONS PLANT***

#### **54. RARE EARTH ROASTER – MDAQMD PERMIT # B000372:**

Herreshoff Roaster (Nicholas), rated at 24.9 million Btu/h on No. 2 Diesel fuel  
Feed Transfer Bin with Metering Screw

Lime Storage Bin, 35-ton capacity (5,000 gal) with Feed Screw  
 Feed Bin Transfer Screw  
 No. 1-Bucket Elevator  
 No. 2-Bucket Elevator  
 No. 3-Bucket Elevator  
 No. 4-Bucket Elevator  
 Roaster Feed Bin  
 Weightometer Belt  
 Transfer Screw  
 Transfer Screw  
 Transfer Screw  
 Feed Screw  
 Roaster Drive  
 Cooling Air Fan  
 Oil Pump  
 Combustion Fans, 2 @ 40 hp each  
 Product Cooler Drive Motor  
 Product Cooler  
 Hammer Screen, 500 VA  
 Calcine Bin 8,750 gal  
 Weightometer Belt  
 Rework Hopper  
 Weightometer Belt  
 Fee Calculation:  $24.9 \text{ million Btu/h} + (2550 \text{ Btu/hp} \times 198 \text{ hp}) = 25.40 \text{ million Btu/h}$

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
 RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
 ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
 VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning baghouses under valid District permits C002595, C004032 and C004094.

**55. BAGHOUSE – HERRESHOFF ROASTER – MDAQMD PERMIT # C002595:**

A unit by Fabric Filters Air Systems, model Module 182-10 (4 each) with the following specifications:

Bags: 728 Polyimide, each at 4.5 in ID and 10 ft long, designed for a 0.8-1.0 in w.g.

Pressure Drop;

Total Cloth Filter Area: 8577 sq ft;

Air to Cloth Ratio: 3.00: 1;

Flowrate: 38,300 ACFM, at 250 degrees Fahrenheit.

Ancillary equipment includes a baghouse screw (1 hp); a roaster cyclone; a rotary valve (0.75 hp); and a transfer screw (3 hp).

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Herreshoff Roaster under valid District permit B000372.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**56. BAGHOUSE – HERRESHOFF ROASTER – MDAQMD PERMIT # C004032:**

A unit by Fabric Filters Air Systems, model number 25-10, with the following specifications:

Bags: 25, at 4.5 in ID and 10 ft long;

Total Cloth Filter Area: 295 sq ft

Air to Cloth Ratio: 4.00: 1;

Flowrate: 1200 ACFM, at 350 degrees Fahrenheit, by a 5 hp fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Herreshoff Roaster under valid District permit B000372.

2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**57. BIN VENT – LIME BIN (HERRESHOFF ROASTER) – MDAQMD PERMIT # C004094:**

A Mikro-Pulsaire, style with the following specifications:

Bags: 20, each at 4.5 in ID by 10 ft long;

Total Filter Area of Bags: 236 sq ft;

Flow rate: 1000 ACFM at ambient conditions;

Air to Cloth Ratio: 4.24: 1.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This bin vent shall operate concurrently with the equipment described as the Lime Bin for the Herreshoff Roaster under valid District permit B000372.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.

Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.

3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this bin vent in strict accord with the recommendations of the manufacturer/supplier.

**58. STABILIZED LEAD/IRON REINTRODUCTION PROCESS – MDAQMD PERMIT # B004489:**

Note: This equipment is located at the Chemical Plant and feeds into the Roaster Leach Circuit (District permit T001941).

Residue Reclaim Hopper, 43 cu ft  
Weightometer Belt Conveyor  
Lump Breaker  
Hammer Mill  
Residue Storage Tank, 900 gal capacity, with agitator  
Transfer Pump  
Residue Surge Pump, 6000 gal capacity, with agitator  
2 Residue Feed Pumps, each at 20 hp  
2 Sump Pumps, each at 15 hp

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit C004490.
2. This equipment shall be operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering practices consistent with minimum emissions of contaminants.



**59. BAGHOUSE - STABILIZED Pb/Fe REINTRODUCTION PROCESS – MDAQMD PERMIT # C004490:**

A cartridge type unit by Fabric Filters Northwest, model 18-1M-8TR with the following specifications:

Cartridges: 18, each 8 in by 39 in

Total Cloth Filter Area: 990 sq ft

Air To Cloth Ratio: 6.56: 1

ACFM: 6500 @ ambient temperatures drawn by a 15 hp fan, and  
2 Rotary Valves at 0.5 hp each.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Stabilized Pb/Fe Reintroduction Process under valid District permit B004489.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**60. LEACH/CCD CIRCUIT – LANTHANIDES PROCESS – MDAQMD PERMIT # B001941:**

Leach Slurry Tank Pumps, 2 @ 5 hp each

No. 1 leach Tank, 5000 gal, with agitator

No. 2 leach Tank, 5000 gal, with agitator  
No. 3 leach Tank, 5000 gal, with agitator  
No. 4 leach Tank, 5000 gal, with agitator  
Mix Tank, with agitator  
Leach Slurry Pumps, 2 @ 5 hp each  
No. 1 CCD Thickener  
No. 1 Overflow Pumps, 2 @ 0.5 hp each  
Overflow Column  
Tailings Hopper  
Tailings Conveyor  
Tailings Screw  
Tailings Neutralizer Tank, with agitator  
Tailings Neutralizer Pumps, 2 @ 15 hp each  
No. 2 CCD Thickener  
No. 2 Overflow Pump  
No. 3 CCD Thickener  
No. 3 Overflow Pump  
No. 4 CCD Thickener  
No. 4 Overflow Pump  
Tailings Disposal Sump, with agitator  
Overflow Sump  
Tailings Disposal Pump, 2 @ 15 hp each

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning caustic scrubber under valid District permit C001940.

61. **SCRUBBER, CAUSTIC - HCL LEACH TANKS (B001941) – MDAQMD PERMIT # C001940:**

A TFI International chlorine fume scrubber with the following design specifications:  
3910 CFM flow rate @ 2797 ft/min velocity;  
ID Exhaust Fan, motor 20;  
80 degrees Fahrenheit operating temperature;  
Scrubber is 14 inches in diameter and 63 ft high; and  
Scrubber Solution Return Pump is rated at 10 hp.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This scrubber shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emissions of contaminants.
2. A log of all maintenance and repairs/replacements shall be kept for this equipment.
3. A 12% caustic solution is used to make-up the 6% scrubber solution. The scrubber solution shall be maintained at 6% + or - 1% (i.e. within 5-7%). The 12% caustic shall be maintained at 10-18%. A sample of each of the 12 and 6% solutions shall be collected and titrated each shift when either this scrubber or the scrubber described in District permit C002077, which serves the CE-96 Plant Process, is in operation. The results of the titrations shall be recorded.
4. Logs mentioned in the above conditions shall be kept current, on-site for a minimum of 5 years and provided to District personnel on request.

**62. STORAGE TANKS – HYDROCHLORIC ACID – MDAQMD PERMIT # T000834:**

TSR-76, which is No. 1 HCl storage tank; and  
TSR-77, which is No. 2 HCl storage tank, both of which have 30,000 gal capacities.  
For Fee purposes, this unit has a total volume of 60,000 gal.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall not be operated unless it is vented to properly functioning scrubber under valid District permit C000324.

**63. SCRUBBER – HCL – MDAQMD PERMIT # C000324:**

A Custom made, 24 in diameter by 120 in high and packed with plastic scrubbing pads.  
This unit collects the emissions of HCl from storage tanks described on District permit  
T000834.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. Any modifications and/or substantial changes to the design of the equipment listed above, which causes a change in the emissions to the atmosphere shall be submitted to the District for approval prior to the changes.
2. This unit shall be operated concurrently with the use of the storing tanks delineated on District permit T000834. Operation of this unit shall be consistent with sound engineering principles which produce the minimum emissions of HCl.

**64. LEAD PRECIPITATION SYSTEM – LANTHANUM – MDAQMD PERMIT # B001938:**

No. 2 Lead Precipitation Tank Agitator  
Lead Precipitation Tank: 26,150 gal  
No. 1 Lead Precipitation Tank: 4,000 gal  
No. 2 Lead Precipitation Tank: 4,000 gal  
Lead Precipitation Reactor Tank Agitator  
No. 1 Lead Precipitation Tank Agitator  
30 inch Lead Thickener Tank: 85,000 gal  
Lead Thickener Agitator  
Lead Thickener Overflow Column  
Lead Thickener Overflow Pumps, 2 @ 10 hp each  
SX Sand Filters  
Wash Water Collection Overflow Pump  
15 ft HRB Reactor  
HRB Reactor Agitator  
Lead Filter Press with Hydraulic Oil Pump  
Lead Filtrate Column  
Lead Filtrate Pump  
Sump Pumps, 2 @ 5 hp each

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum of emissions.
2. This equipment shall not be operated unless it is vented to properly functioning air pollution control equipment covered by valid District permit C004666.

**65. SCRUBBER – CAUSTIC (LEAD REMOVAL CIRCUIT) – MDAQMD PERMIT # C004666:**

A unit by Duall Division of Met Pro Corporation, model FW 304-OC, which operates at 3000 ACFM at ambient conditions. A 7.5 hp exhaust fan accomplishes flow. Additionally there is a 5 hp recirculation pump.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This scrubber shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emissions of contaminants.
2. A log of all maintenance and repairs/replacements shall be kept for this equipment.
3. Logs mentioned in the above conditions shall be kept current, on-site for a minimum of 5 years and provided to District personnel on request.
4. This scrubber shall operate concurrently with the Lead Removal Circuit under valid District permit B001938.

**66. PORTABLE SILO – MDAQMD PERMIT # T004548:**

A 1200 cu ft vertical, dry material unit by Belgrade Steel Tank Company. Included are: a 4 inch fill tube; 4 inch cleanout tube; a 10 hp motor operating a 10 inch nominal discharge auger.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The equipment shall not receive any material unless it is vented to functioning baghouse covered by valid District permit C004941.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**67. BIN VENT – PORTABLE SILO (CHEMICAL PLANT) – MDAQMD PERMIT # C004941:**

A unit by Belgrade Steel Tank Company, model number 150 with the following specifications:

Bags: 16, each at 8 in ID and 4 ft long;

Total Cloth Filter Area: 150 sq ft

Air to Cloth Ratio: 2.50 : 1;

Flow rate: 375 ACFM, at ambient.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Portable Silo at the Chemical Plant under valid District permit T004548.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**68. CERIUM CIRCUIT NO. 2 – DRYER SYSTEM – MDAQMD PERMIT # B000379:**

No. 2 Cerium Drum Filter

No. 2 Cerium Drum Filter Agitator

Drum Filter Transfer Screw

Dryer Feed Screw

Short Belt

Burner Oil Pump

Combustion Air Fan  
Drive Motor  
Vacuum Filtrate Pumps, 2 @ 5 hp each  
Drum Filter Mix Tank  
Drum Filter Feed Box  
Filter Return Tank  
Filter Return Tank Agitator  
Filtrate Pumps, 2 @ 5 hp each  
Filtrate Receiver  
Filtrate Return Pump  
Dryer Cyclone @ 0.25 hp Note: This value shows as rounded up to 0.3, under capacity!  
Rework Screw  
Rework Hopper  
Dryer Discharge Screw  
Dryer Discharge Bucket Elevator  
Rotary Dryer, stainless steel, 7 ft diameter by 28 ft long with rated fuel input of 5.0 million Btu/h  
Fee Calculation = 5.0 million Btu/h + (2550 Btu/h/hp x 92.25 hp) = 5.23 million Btu/h

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit number C000378.

**69. BAGHOUSE – NO. 2 CERIUM CIRCUIT DRYER SYSTEM – MDAQMD PERMIT # C000378:**

A Mikro-Pul, model 49-S-10, with the following specifications:  
Bags: 49 Nomex on Polyester, 4.5 in ID by 10 ft;  
Flowrate: 4000 ACFM, by 15 hp motor driven fan at ambient conditions;  
Total Cloth Area: 577 sq ft;  
Air to Cloth Ratio: 6: 1;  
Pressure Differential across Bags: 5-7 in water gauge.  
There is a rotary airlock, star valve @ 1/4 hp and dryer ID fan of 40 hp.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 2 Cerium Circuit Dryer System under valid District permit B000379.

2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**70. CERIUM CIRCUIT NO. 2 PACKAGING SYSTEM AT CHEMICAL PLANT –  
MDAQMD PERMIT # B000377:**

“A” Sweco Screen  
“B” Sweco Screen  
“A” Sweco Screen  
North Con. Bin, 75-ton capacity  
South Con. Bin, 75-ton capacity  
North Bin Screw Conveyor  
South Bin Screw Conveyor  
South Bin Screw Conveyor for feedback loop  
Collecting Screw Conveyor  
Blending and Transfer Screw Conveyor  
Sling Bin Packing Station  
Bucket Elevator  
Surge Bin, 180-ton capacity  
Scalping Screen  
Truck Loading Screw Conveyor  
Sling Bin Packing Station  
Recycle Screw Conveyor

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.



ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouses covered by valid District permits C000380 and C004415.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

**71. BAGHOUSE – NO. 2 CERIUM CIRCUIT PACKAGING SYSTEM – MDAQMD  
PERMIT # C000380:**

A unit by Fabric Filters Air Systems, model number TR-144 with the following specifications:

Bags: 144 Gortex, each at 4.5 in ID and 10 ft long, designed to operate at 3-6 in w.g.

Pressure drop;

Total Cloth Filter Area: 1696 sq ft

Air to Cloth Ratio: 3.00: 1;

Flow rate: 6,800 ACFM, at 325 degrees Fahrenheit, by a 15 hp fan (F-12).

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 2 Cerium Circuit Packaging System under valid District permit B000377.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.

5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**72. BIN VENT – NO. 2 CERIUM PACKAGING SYSTEM (SOUTH BIN) – MDAQMD PERMIT # C004415:**

A unit by Hosokawa MikroPul Environmental Systems, model number 16S-10-30, "B" style, with the following specifications:

Bags: 16 each at 4.5 in ID and 10 ft long;

Total Cloth Filter Area: 188 sq ft

Air to Cloth Ratio: 1.0: 1;

Flow rate: 180 ACFM, at 180 degrees F.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 2 Cerium Packaging System, South Bin, under valid District permit B000377.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**73. PACKAGING SYSTEM FOR CERIUM CIRCUIT NO. 2 – MDAQMD PERMIT # B002831:**

Transfer Screw

Bucket Elevator  
Sweco Screen  
Baghouse Dust Bin  
Star Valve  
Dust Rework Screw  
Rework Hopper  
Transfer Screw  
Bucket Elevator, 2 each @ 5 hp  
Blending Sweco Screen  
Blending Screw  
100 ton Bin  
100 ton Bin Rotary Valves, 3 each @ 0.25 hp  
Dryer Baghouse Transfer Screw

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. Any modifications and/or substantial changes to the design of the equipment listed above, which causes a change in the emissions to the atmosphere shall be submitted to the District for approval prior to the changes.
2. This equipment shall not be operated unless it is vented to properly functioning air pollution control equipment covered by valid District permit C004416.

**74. BAGHOUSE – NO. 2 CERIUM PACKAGING SYSTEM – MDAQMD PERMIT # C004416:**

A unit by Fabric Filters Air Systems, model number 25-10-BR with the following specifications:

Bags: 25, each at 5 in ID by 10 ft long;

Total Cloth Filter Area: 327 sq ft;

Flow rate: by a 3 hp fan, at ambient conditions.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 2 Cerium Packaging System, under valid District permit B002831.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:

- a. Weekly readings and recording of the pressure differential across the bags;
- b. Monthly visible emissions determinations, VEE results logged;
- c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.

The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.

Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.

3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

## ***PROCESS: 4A – SEPARATIONS PLANT***

### **75. DRYER SYSTEM – NO. 1 CERIUM CIRCUIT – MDAQMD PERMIT # B000841:**

Dryer, Oil Fired; maximum rate 5.0 million Btu/h

Dryer Feed Conveyor

Reclaim Hopper, 330 cu ft or 11.5 ton

F-6 Combustion Air Fan

HM-6 Hammer Mill

RD-1 Drive Motor

VHP-1 Burner Oil Pump

SC-3 Discharge Screw Conveyor, 1 ft by 20 ft long

BE-5 Bucket Elevator, 2.5 ft by 40 ft long

S-1 Sweco Screen, 60 inches

SC-4 Screw Conveyor Discharge

SC-5 Screw Conveyor Discharge

Baghouse Screw Conveyor

Dry Cyclone

Dry Cyclone Star Valve

BS-5 North Product Bin, 8,750 gal

BS-6 South Product Bin, 8,750 gal

Fee Calculation:  $5.0 \text{ million Btu/h} + (2550 \text{ BTU/h/hp} \times 44.0 \text{ hp}) = 5.11 \text{ million Btu/h}$

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.

ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C003592.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

**76. BAGHOUSE – NO. 1 CERIUM CIRCUIT DRYER – MDAQMD PERMIT # C003592:**

A unit by Fabric Filters Air Systems, model number 144-10 with the following specifications:

Bags: 144, each at 4.5 in ID and 10 ft long;

Total Cloth Filter Area: 1884 sq ft

Air to Cloth Ratio: 3.61: 1;

Flow rate: 6800 ACFM, at 350 degrees Fahrenheit, by a 40 hp fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 1 Cerium Circuit Dryer under valid District permit B000841.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.

5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**77. NO. 1 CERIUM CONCENTRATE BAGGING MACHINE – MDAQMD PERMIT # B000826:**

F-8 Blower for both North and South Sacking Machine, 7.5 hp

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C000827.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

**78. SKINNER ROASTER SYSTEM – MDAQMD PERMIT # B000828:**

Hearth Roaster, whose input rating is 4.10 million Btu/h

SR-2 Roaster Drive Motor

F-16 Combustion Air Blower

VHP-43 Burner Oil Pump

PC-2 Product Cooler

BE-7 Bucket Elevator, 2.5 ft by 40 ft long

SC-11 Screw Conveyor, 1 ft by 50 ft long

BE-8 Bucket Elevator, 2.5 ft by 30 ft long

THS-2 Sweco Screen, 48 inches

BS-11 Storage Bin, 8,750 gal

Fee Calculation: 4.10 million Btu/h +(2550 Btu/h/hp x 39.5hp) = 4.20 million Btu/h

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C003593.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

**79. BAGHOUSE – SKINNER ROASTER SYSTEM – MDAQMD PERMIT # C003593:**

A unit by Fabric Filters Air Systems, model number 225-10 with the following specifications:

Bags: 25, each at 5 in ID by 10 ft long;

Total Cloth Filter Area: 2936 sq ft

Air to Cloth Ratio: 3.87: 1;

Flow rate: 11,350 ACFM, at 375 degrees Fahrenheit, by a 40 hp fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Skinner Roaster System under valid District permit B000828.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of 5 years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

***PROCESS: 4B – SEPARATIONS PLANT***

**80. BOILER – STEAM – MDAQMD PERMIT # B000840:**

CPB-2 Boiler rated at (300 hp) 12.5 million Btu/h

CFP-16 Cooling Tower Feed Pump

APH-13 Boiler Feed Pump

F-3 Combustion Air Fan

AHP-15 Chemical Feed Pump (@0.25 hp)

AHP-14 Deaerater Recirculation Pump

AHP-12 Boiler Feed Pump

VHP-1 Fuel Pump

VHP-2 Fuel Pump

Fee Calculation: 12.5 million Btu/h +(2550 Btu/h/hp x 32.75 hp) = 12.58 million Btu/h

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier.
2. The sulfur concentration of the fuel oil used in this boiler shall not exceed 0.05% on a weight per weight basis.

**81. CERIUM REDOX CIRCUIT – MDAQMD PERMIT # B004921:**

54-1101-01 Redox Precipitation Tank Agitator No. 1

54-1101-02 Redox Precipitation Tank Agitator No. 2

54-1101-03 Redox Precipitation Tank Agitator No. 3

54-1102-01 Redox Thickener Mix Tank Agitator No. 1

54-1102-02 Redox Thickener Mix Tank Agitator No. 2

54-1103 Redox Leach Tank Agitator

54-1104-01 Syn Ce Precipitation Tank Agitator No. 1

54-1104-02 Syn Ce Precipitation Tank Agitator No. 2

54-1104-03 Syn Ce Precipitation Tank Agitator No. 3

54-1104-04 Syn Ce Precipitation Tank Agitator No. 4

54-1105-01 Syn Ce Thickener Mix Tank Agitator No. 1

54-1105-02 Syn Ce Thickener Mix Tank Agitator No. 2

54-1106 Redox Leach Tank Agitator

54-1107 Redox Overflow Sump Agitator

54-1108 No. 1 Ce Filter Thickener, 8 ft diameter by 8 ft high

54-1601 Air Compressor

54-1602 Vacuum Pump @ 125 hp

54-2401 Redox Thickener Stand Pipe

54-2601 Vacuum Receiver

54-2701-01 No. 1 Raffinate Discharge Pump, @ 90 gal/min

54-2701-02 No. 2 Raffinate Discharge Pump, @ 90 gal/min

54-2702 Redox Thickener ODS Pump @ 6 gal/min

54-2703 Redox Thickener ODS Pump @ 4 gal/min



54-2704-01 No. 1 Redox Thickener Overflow Pump @ 72 gal/min  
 54-2704-02 No. 2 Redox Thickener Overflow Pump @ 72 gal/min  
 54-2705-01 No. 1 Cerium Free Liquor Pump, @ 90 gal/min  
 54-2705-02 No. 2 Cerium Free Liquor Pump, @ 90 gal/min  
 54-2706 Redox Filtrate Pump @ 5 gal/min  
 54-2707 Redox Leach Pump @ 25 gal/min  
 54-2708 Redox Scrubber Return  
 54-2709-01 No. 1 Redox Cerium Liquor Discharge Pump @ 30 gal/min  
 54-2709-02 No. 2 Redox Cerium Liquor Discharge Pump @ 30 gal/min  
 54-2701-01 No. 1 Cerium-96 Liquor Discharge Pump @ 30 gal/min  
 54-2701-02 No. 2 Cerium-96 Liquor Discharge Pump @ 30 gal/min  
 54-2711-01 No. 1 Syn Ce ODS Pump @ 7 gal/min  
 54-2711-02 No. 2 Syn Ce ODS Pump @ 7 gal/min  
 54-2711-03 No. 3 Syn Ce ODS Pump @ 7 gal/min  
 54-2711-04 No. 4 Syn Ce ODS Pump @ 7 gal/min  
 54-2714 No. 1 Cerium Filter Thickeners ODS Pump  
 54-2715-01 No. 1 Scrubber Solution Supply Pump @ 50 gal/min  
 54-2715-02 No. 2 Scrubber Solution Supply Pump @ 50 gal/min  
 54-2716-01 No. 1 Digester Liquor Pump @ 25 gal/min  
 54-2716-02 No. 2 Digester Liquor Pump @ 25 gal/min  
 54-3201 Redox Drum Filter, 6 ft in diameter by 7.5 ft high  
 54-3301 Raffinate Collection Tank, 14 ft in diameter by 20 ft high  
 54-3302-01 No. 1 Redox Precipitation Tank, 8 ft in diameter by 8 ft high  
 54-3302-02 No. 2 Redox Precipitation Tank, 8 ft in diameter by 8 ft high  
 54-3302-03 No. 3 Redox Precipitation Tank, 8 ft in diameter by 8 ft high  
 54-3303-01 No. 1 Redox Thickener Mix Tank, 3 ft in diameter by 4 ft high  
 54-3303-02 No. 2 Redox Thickener Mix Tank, 3 ft in diameter by 4 ft high  
 54-3304 No. 1 Redox Thickener Tank, 30 ft in diameter by 12 ft high  
 54-3305 No. 2 Redox Thickener Tank, 30 ft in diameter by 12 ft high  
 54-3306 Cerium Free Liquor Tank, 14 ft in diameter by 20 ft high  
 54-3307 Redox Leach Tank, 8 ft in diameter by 8 ft high  
 54-3309 Pump Box for Scrubber  
 54-3310 Redox Cerium Liquor Storage Tank, 13 ft in diameter by 10 ft high  
 54-3111 Cerium-96 Liquor Storage Tank, 13 ft in diameter by 10 ft high  
 54-3312-01 No. 1 Syn Ce Precipitation, 8 ft in diameter by 8 ft high  
 54-3312-02 No. 2 Syn Ce Precipitation, 8 ft in diameter by 8 ft high  
 54-3312-03 No. 3 Syn Ce Precipitation, 8 ft in diameter by 8 ft high  
 54-3312-04 No. 4 Syn Ce Precipitation, 8 ft in diameter by 8 ft high  
 54-3314-01 No. 1 Syn Ce Thickener Mix Tank 3 ft in diameter by 4 ft high  
 54-3314-02 No. 2 Syn Ce Thickener Mix Tank 3 ft in diameter by 4 ft high  
 54-3314-03 No. 3 Syn Ce Thickener Mix Tank 20 ft in diameter by 10 ft high  
 54-3314-04 No. 4 Syn Ce Thickener Mix Tank 20 ft in diameter by 10 ft high  
 54-3317 Redox Leach Tank, 7 ft in diameter by 7 ft high  
 54-3318 Redox Overflow Sump for the Redox Leach Tank, 54-3317 (above)  
 54-3319 Vacuum Pump Silencer  
 54-3320 No. Cerium Filter Thickener, 8 ft in diameter by 8 ft high

- 54-3321 No. Cerium Filter Thickener Mix Tank, 3 ft in diameter by 4 ft high
- 54-3401 Redox Thickener Rake for No. 1 Redox Thickener Tank (54-3304)
- 54-3402 Redox Thickener Rake for No. 2 Redox Thickener Tank (54-3305)
- 54-3403 Syn Cerium Thickener Rake for corresponding Mix Tank (54-3315) @ 1.5 hp
- 54-3404 Syn Cerium Thickener Rake for corresponding Mix Tank (54-3316) @ 1.5 hp
- 54-3405 Redox Thickener Drive
- 54-3406 Redox Thickener Drive
- 54-3407 Syn Ce Thickener Drive
- 54-3408 Syn Ce Thickener Drive
- 54-3501 Redox Vapor Scrubber (See District permit C004922)
- 54-2602 Air Receiver, 36 in. in diameter by 73.5 in. long

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles, which produce the minimum of emissions.
2. This equipment, inclusive of all Redox precipitation tanks and the associated leach tanks shall not be operated unless vented to properly functioning scrubber under valid District permit C004922.

**82. SCRUBBER – CAUSTIC (CERIUM REDOX CIRCUIT) – MDAQMD PERMIT # C004922:**

- 54-3501 Redox Scrubber, with polypropylene packing and mist eliminators;
- 54-3502 ID fan, producing 1400 ACFM at 9 in w.g.; and
- 54-3503 Scrubber Stack, ancillary equipment area control, MCC and the compressor rooms.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This scrubber shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emissions of contaminants.
2. This equipment shall operate concurrently with the Redox precipitation tanks and associated leach tanks of the Cerium Redox Circuit under valid District permit B004921.

3. The owner/operator, o/o, shall notify the District within 10 days prior to each of the following:
  - a. Commencement of initial construction:
  - b. Commencement of start-up of equipment for shake-down purposes; and
  - c. Commencement of start up of operations for commercial purposes.
4. The o/o shall comply with District rule 406, which concerns the emissions of chlorine compounds.
5. This scrubber shall discharge elemental chlorine at no more than a maximum concentration of 450 parts per million by volume, ppm, v/v. The discharge of hydrogen chloride shall not exceed a concentration of 800 ppm, v/v.
6. Within 180 days from the initial start-up of this unit, as described in condition 3 c above, the o/o shall conduct emissions testing for those compounds described in condition 4 above, in strict accord with all the procedures delineated in the District's "Compliance Test Procedural Manual". This testing is necessary to demonstrate compliance with permit conditions in 5 above (District Rule 406). The District shall be notified no less than 10 working days prior to the actual testing date and receive the final report of emissions no later than 45 days subsequent to the final day of on-site sampling/measurements.

### ***PROCESS: 5 – CERIUM 96 PLANT***

#### **83. CERIUM SLURRY MAKE-UP PROCESS – MDAQMD PERMIT # B004033:**

Cerium Slurry Make-up Hopper  
Cerium Slurry Make-up Tank, 2000 gal, with agitator @ 2 hp  
Cerium Slurry Transfer Pump, 20 hp  
Total HP = 22.0

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C004034.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**84. BAGHOUSE – CERIUM SLURRY MAKE-UP – MDAQMD PERMIT # C004034:**

A unit whose Air to Cloth ratio is 4.72 : 1:

Filter Area is: 424 sq ft;

Exhaust Fan is: 7.7 hp and produces 2000 ACFM @ ambient conditions.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Cerium Slurry Make-up Process under valid District permit B004033.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**85. LEACH CIRCUIT – CERIUM CARBONATE – MDAQMD PERMIT # B002169:**

4A-120 Slurry Pre-heat and Storage Tank Agitator

Slurry Pre-heat and Surge Tank, 4,650 gal

4P-551 Slurry Feed ODS Pump

4P-552 Slurry Feed ODS Pump

No. 1 Leach Tank, 4,650 gal; with 5 hp agitator

No. 2 Leach Tank, 1,200 gal; with 5 hp agitator

No. 3 Leach Tank, 1,200 gal; with 5 hp agitator

No. 4 Leach Tank, 1,200 gal; with 5 hp agitator

4P-282 Circulation Pump

4RV-270 Rotary Feeder  
4C-270 Tubular Conveyor Expansion  
4CH-282 No. 1 Leach Chiller System: 60 ton  
4CH-282 No. 2 Leach Chiller System: 60 ton  
Borax Storage Bin, 16,000 gal  
Potassium Chloride Storage Bin, 16,000 gal  
4RV-250 Borax Bin Rotary Feeder  
4RV-260 Potassium Chloride Bin Rotary Feeder

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall not be operated unless vented to all of the following properly functioning scrubber and baghouses under valid District permits C002077 and C003998, respectively.

**86. SCRUBBER (HCl) – MDAQMD PERMIT # C002077:**

A fume scrubber tank and its ID fan (4ID-810), which is driven by a 57.5 hp motor.  
Note: This scrubber controls HCl fumes from the Leach Circuit (District permit B002169), the Product Precipitation System (B002173) and the Leach Residue Circuit (B004100) as well as being fed neutralizing solution from the Neutralizing System (B002171).

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This scrubber shall operate concurrently with the equipment described in District permits B002169, B002171 and B004100.
2. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier.

**87. BIN VENT – BORAX STORAGE BIN – MDAQMD PERMIT # C003998:**

A baghouse unit with 20 bags, whose total filter area is 234 sq ft at a 4.2 to 1 air to cloth ratio and 1000 ACFM for ambient temperatures.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.

ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Borax Storage Bin under valid District permit B002169.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**88. BIN VENT – NO. 4 CONCENTRATE – MDAQMD PERMIT # C003999:**

A baghouse unit with 20 bags, whose total filter area is 234 sq ft at a 4.2 to 1 air to cloth ratio and 1000 ACFM for ambient temperatures.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 4 Concentrate Storage Bin under valid District permit B000819.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Monthly visible emissions determinations, VEE results logged;
  - b. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.

Items a and b shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.

3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**89. NEUTRALIZATION SCRUBBER SOLUTION CIRCUIT – MDAQMD PERMIT # B002171:**

Scrubber Solution Tank, 5,250 gal capacity  
12% NaOH Solution Storage Tank, 2,450 gal capacity; agitator (4A-846)  
Neutralization Tank, 6,800 gal capacity; agitator (4A-820)  
4P-830A Scrubber Solution Pump  
4P-830B Scrubber Solution Pump  
4P-846A NaOH Solution Pump  
4P-846B NaOH Solution Pump

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall operate concurrently with the scrubber under valid District permit C002077. This scrubber, C002077, collects HCl fumes from the Leach Circuit, Product Precipitation System and Leach Residue Circuit under valid District permits B002169, B002173 and B004100, respectively.

**90. LEACH RESIDUE (CE-96 PLANT) CIRCUIT – MDAQMD PERMIT # B004100:**

Leach Residue Thickener Tank, 12 ft by 6 ft with agitator  
Overflow Pumps, 2 @ 2 hp each  
Leach Liquor Storage Tank, 10,000 gal  
No. 1 Leach Residue Filter Press 48 inch square, with transfer screw  
No. 2 Leach Residue Filter Press 48 inch square, with transfer screw  
No. 1 Repulp Tank, 200 gal, with agitator  
No. 2 Repulp Tank, 200 gal, with agitator  
No. 1 Sump Pump  
No. 2 Sump Pump

Leach Residue Repulp Tank, 560 gal, with agitator

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless vented to both properly functioning HCl fume scrubber and water scrubber under valid District permits C002077 and C004930 respectively.
2. This equipment shall be operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering practices consistent with minimum emissions of contaminants.

**91. WATER SCRUBBER – MDAQMD PERMIT # C004930:**

A custom made unit, which is 48 in diameter by 32 ft high with 5 ft of packing and a 24 hp fan motor.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This scrubber shall operate concurrently with the equipment described as the Leach Residue Circuit under valid District permit B004100.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the scrubber;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Water pressures, flow rates, and pH.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
4. The o/o shall operate and maintain this scrubber in strict accord with the recommendations of the manufacturer/supplier.



**92. CERIUM 96 PLANT – IRON REMOVAL CIRCUIT – MDAQMD PERMIT # B002170:**

Iron Precipitation Tank, 5,650 gal  
Neutralization Tank, 5,650 gal  
4P-490 Slurry Overflow Pump  
4A-420 Iron Precipitation Tank Agitator  
4A-410 Neutralization Tank Agitator,  
No. 1 Iron Residue Thickener (12 ft diameter by 8 ft high) and Rake, 4Z-001 @ 3 hp  
No. 2 Iron Residue Thickener (12 ft diameter by 8 ft high) and Rake, 4Z-440 @ 3 hp  
Mix Tank and its Agitator  
ODS Iron Thickener Underflow Pump  
Iron/Lead Filter Press  
4P-450 Thickener Overflow Pump  
4P-460 Thickener Overflow Pump  
Thickener Overflow Polish Filters, 4 each  
Pb/Fe Free Storage Tank, 8,000 gal  
4P-510A Precipitator Feed Pump No. 1  
4P-510B Precipitator Feed Pump No. 2  
Polish Filters, 8 each  
Cyclone  
Iron Residue Pug Mill Screw

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning scrubber covered by valid District permit C004000.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**93. SCRUBBER – IRON PRECIPITATION & NEUTRALIZATION TANKS – MDAQMD PERMIT # C004000:**

Duall, model F303, which serves the Iron Precipitation and Neutralization Tanks (District permit B002170). This scrubber has the following design characteristics: 2,000 CFM flow rate (at 95 ft sec velocity); 7.5 hp blower and an operating temperature of 1206 degrees Fahrenheit. A stack of 8 in diameter and 30 ft high serves this unit.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.

ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This scrubber shall operate concurrently with the Iron Precipitation and Neutralization Tanks covered under valid District permit B002170.
2. The owner/operator, o/o, shall maintain a log of repairs, inspections, dates of same as a minimum. This log shall be kept current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. This scrubber shall be operated and maintained in strict accord with those recommendations of the manufacturer/supplier.

**94. CERIUM CARBONATE CIRCUIT – MDAQMD PERMIT # B002173:**

No. 1 Product Precipitation Tank (2900 gal) and agitator (4A-520) @ 5 hp  
No. 2 Product Precipitation Tank (2900 gal) and agitator (4A-530) @ 5 hp  
No. 3 Product Precipitation Tank (2900 gal) and agitator (4A-540) @ 5 hp  
Soda Ash Storage Bin 80 ton capacity  
4C-957 Screw Conveyor  
Soda Ash Slurrifier  
Slurry Tank 9000 gal capacity  
4A-957 Agitator  
4P-957 Transfer Pump  
4P-967 Transfer Pump  
2-Diaphragm Pumps  
4P-33F Vacuum Pump  
4F-610 Drive  
No. 1 Product Filter  
4P-610A Filtrate Pump  
4P-610B Filtrate Pump  
4P-61F Vacuum Pump  
4F-620 Drive Motor  
No. 2 Product Filter  
4F-62F Vacuum Pump  
4P-620A Filtrate Pump  
4P-620B Filtrate Pump  
4P-620C Filtrate Pump  
4P-620D Filtrate Pump  
4P-630 Filtrate Water Return Pump  
Wash Water Pump  
AZ-650C Belt Cleaning Brush  
4C-650 Dryer Feed Conveyor Drive  
4P-330 Seal Water Pump  
Wash Water Return Pump – Diaphragm

2 – Diaphragm Pumps  
Filter Cake Packaging Machine  
Product Hopper with Mechanical Valve

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C004295.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**95. BAGHOUSE – SODA ASH STORAGE BIN (PRODUCT PRECIPITATION) –  
MDAQMD PERMIT # C004295:**

A Pulsaire, model 16S 10 30B, which serves the Soda Ash Storage Bin in the Product Precipitation System at the CE-96 Plant. This baghouse has the following specifications:  
Bags; 16, each at 4.5 in diameter by 10 ft long  
Total Cloth Area: 188 sq ft  
Air to Cloth Ratio: 4.25:1  
Exhaust Fan: 5 hp, which produces  
Flow rate: 800 ACFM at ambient temperatures.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Soda Ash Storage Bin under valid District permit B002173.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.

3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**96. PRODUCT DRYER – CERIUM CARBONATE – MDAQMD PERMIT # B002167:**

4C 710 Rework Screw  
4D 710 Product Dryer  
Air Pre-heater  
4HE 718 Pre-heater Fan  
4E 760 Bucket Elevator, 2.5 ft by 40 ft  
4C 760 Screw Conveyor, 1 ft by 20 ft  
Dump Hopper

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit number C002078.

**97. BAGHOUSE – CERIUM DRYER – MDAQMD PERMIT # C002078:**

A MikroPul model 20S-10-30 with the following specifications:  
ACFM: 1400 @ 170 degrees F  
A: C 6:1  
Pressure Differential across bags: 7 in w.c.  
No. and type bags: 20 Gortex over Nomex, 4.5 in diameter by 10 ft long  
Rating by Manufacturer of bags: 99.8%  
This baghouse is equipped with a heater, a Rotary Feeder (0.5 hp) and a 5 hp ID Fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Cerium Carbonate Circuit under valid District permit B002167.

2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**98. PACKAGING – CERIUM CARBONATE – MDAQMD PERMIT # B002168:**

A 4 hp Product Packaging Machine;  
Dry product storage bin, 8,677 gal;  
Rotary Valve, 0.5 hp  
4S-720 Sweco Screen, 2.5 hp

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning air pollution control device covered under valid District permit C002174.

**99. BIN VENT – CERIUM CARBONATE PACKAGER – MDAQMD PERMIT # C002174:**

A Bin Vent exhausting by a 5 hp ID fan (4ID-740)

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.

ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Cerium Carbonate Packager under valid District permit B002168.
2. The o/o shall operate and maintain this equipment in strict accord with the recommendations of the manufacturer/supplier. The o/o shall log all maintenance and inspections. The log shall be kept current, on-site for a minimum of five (5) years and provided to District personnel on request.

### ***PROCESS: #6 – SPECIALTY PLANT***

#### **100. YTTRIUM PRECIPITATION – SPECIALTY PLANT – MDAQMD PERMIT # B004333:**

2 feed Bins, at 1000 gal each  
No. 1 Yttrium Precipitation Tank at 3150 gal, with agitator  
No. 2 Yttrium Precipitation Tank at 3150 gal, with agitator  
Decant Pump  
Decant Tank at 6852 gal  
Drum Filter  
Drum Filter Rakes  
Belt Filter  
5 Filtrate Pumps, each at 0.33 hp

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall be operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering practices consistent with minimum emissions of contaminants.

#### **101. FURNACE #3: YTTRIUM/EUROPIUM CO-PRECIP – MDAQMD PERMIT # B004027:**

A Mine and Smelter Company unit with Nichrome heating elements rated to heat to 1000 degrees Celsius. The unit has 4 heating zones and five cars. This unit is rated at 180 kW(e).

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C000700.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**102. FURNACE #1: YTTRIUM/EUROPIUM CO-PRECIP – MDAQMD PERMIT # B000698:**

FB-GD-900 Huppert Furnace, style 4835120 KR, which is rated at 150 kW(e)  
Nichrome Heating Elements, whose maximum temperature is 2,250 degrees Fahrenheit  
Car Puller, 1.0 hp  
Blower Fan, 0.5 hp  
Cooler Fan, 0.5 hp  
Sweco Screen, single state @ 30 mesh, 0.33 hp  
Fee is based on 150 kW(e)

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C000700.

**103. PACKAGING –YTTRIUM, CO-PRECIPITATION – MDAQMD PERMIT # B004030:**

80 cu ft Blender @ 20 hp  
No. 2 Product Screw @ 1.5 hp  
80 cu ft Product Bin 0.5 hp  
Packaging Scale.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning baghouse covered by valid District permit C004031.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**104. BAGHOUSE – YTTRIUM CO-PRECIIPITATION PACKAGING PROCESS –  
MDAQMD PERMIT # C004031:**

A unit by Torit Manufacturing with the following specifications:

Bags: 20 flat filters;

Total Cloth Filter Area: 50 sq ft

Air to Cloth Ratio: 4.00: 1;

Flow rate: 200 ACFM, at ambient, by a 3 hp fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Yttrium Co-precipitation Packaging Process under valid District permit B004030.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.



**105. FURNACE #2: YTTRIUM OXIDE – MDAQMD PERMIT # B000699:**

FB-SD-800 Electric Globar Heating Elements, 4 heating zones, rated at 240 kW(e)  
Cars, 4  
Car Puller, 1 hp  
Sweco Screen, single deck, 30 mesh, 0.33 hp  
Fee is based on 240 kW(e)

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit number C000702.

**106. BAGHOUSE – YTTRIUM OXIDE PRODUCTS – MDAQMD PERMIT # C000702:**

A unit by Bact Engineering with the following specifications:  
Bags: 20, each at 6.5 in ID and 78 in long;  
Total Cloth Filter Area: 212 sq ft  
Air to Cloth Ratio: 4.00: 1;  
Flow rate: 700 ACFM, at 350 degrees Celsius, by a 20 hp fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Yttrium Oxide Product under valid District permit B000699.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.

4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**107. PACKAGING – YTTRIUM PROCESS – MDAQMD PERMIT # B004028:**

80 cu ft Blender, 30 hp  
No. 2 Product Screw, 3 hp  
80 cu ft Product Bin @ 0.5 hp  
Packaging Scale

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The equipment shall not be operated unless it is vented to functioning Baghouse covered by valid District permit C004029.
2. This equipment shall be operated/maintained in strict accord with the recommendations of the manufacturer/supplier.

**108. BAGHOUSE – YTTRIUM PACKAGING PROCESS – MDAQMD PERMIT # C004029:**

A unit by C.P. Environmental Filters Inc. with the following specifications:  
Bags: 32, each at 5 in ID and 3 ft long;  
Total Cloth Filter Area: 140 sq ft  
Air to Cloth Ratio: 4.00: 1;  
Flow rate: 200 ACFM, at ambient.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Yttrium Packaging Process under valid District permit B004028.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:

- a. Weekly readings and recording of the pressure differential across the bags;
- b. Monthly visible emissions determinations, VEE results logged;
- c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.

The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.

Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.

3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**109. SPECIALTY PLANT FEED PREPARATION CIRCUIT – MDAQMD PERMIT # B002372:**

TEP-108 Flocculant Mix Tank, with Agitator @ 1/3 hp

T-FP-106A Feed Preparation Tank, with Agitator @ 2 hp

T-FP-107B Feed Preparation Tank, with Agitator @ 2 hp

T-FP-105C Feed Preparation Tank, with Agitator @ 2 hp

DF-FP-109 Drum Filter with drive motor

Agitator @ 1/3 hp

Filtrate Receiver

Pump @ 1 hp

Vacuum system

Demister

Moister Trap

Seal Tank

Pump @ 1 hp

T-FP-110 Precoat Make-up Tank, with Agitator @ 1 hp

T-FP-111A Filtrate Tank with Agitator @ 2 hp

T-FP-112B Filtrate Tank with Agitator @ 2 hp

Pump @ 1 hp

AG-SX-500 1-14 Extraction cells, 14, with Agitators at 1/3 hp each

T-FP-113 SX No. 5 Feed Tank

P-FP-113-1 SX No. 5 Feed Tank Pump

T-SX-501 Feed Head Tank

T-SX-506 Organic Pump Tank

T-SX-503 Organic Head Tank

T-SX-502 Trap Tank

T-SX-505 Trap and Pump (@ 1 hp) Tank

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning caustic scrubber under valid District permit C004255.

**110. CAUSTIC SCRUBBER – MDAQMD PERMIT # C004255:**

A Duall, model FW303, which is fed from Ce-96 Scrubber Solution Tank (District permit B002171) and serves the three Feed Preparation Tanks in the Feed Preparation Circuit of the Specialty Plant (B002172). Its specifications are as follow:

Air Flow Rate: 6,000 CFM at ambient temperatures;

240 gal sump tank;

400 gal caustic solution collecting tank.

The emissions stack is 29 in diameter and 50 ft high.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This scrubber shall operate concurrently with the equipment described as the Feed Preparation Tanks under valid District permit B002372.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the scrubber;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Water pressures, flow rates, and pH.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
4. The o/o shall operate and maintain this scrubber in strict accord with the recommendations of the manufacturer/supplier.

**111. BOILER – SPECIALTY – MDAQMD PERMIT # B001099:**

A Cleaver-Brooks, Model CB 250, which is fired on No. 2 diesel fuel and rated at 10.08 million Btu/h. This boiler normally produces steam at 8600 lb/h @ 150 psig and has the following ancillary equipment:

Combustion Air Fan @ 7.5 hp

Fuel Pump, 2 each @ 0.33 hp

HE-ST-329 Steam Boiler, @ 250 hp

C-1A-321 or COE-8 Instrument Air Compressor @ 75 hp

Air Dryer, Air Receivers and Instruments; the total hp of ancillary equipment is 333.16.

Fee Calculation:  $(333.16 \text{ hp} \times 2550 \text{ Btu/h/hp}) + 10.08 \text{ million Btu/h} = 10.93 \text{ million Btu/h}$

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier.
2. The sulfur concentration of the fuel oil used in this boiler shall not exceed 0.05% on a weight per weight basis.

**112. RIBBON BLENDER DRYER – MDAQMD PERMIT # B004664:**

A skid mounted unit, 4 ft diameter by 15 ft long with a 75 hp drive and a 2 hp eductor fan. This unit uses a maximum of 650 lb/h of steam produced by the boiler under District permit B001099, which is located at the Specialty Plant.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall be operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering practices consistent with minimum emissions of contaminants.

## ***PROCESS: #6A SPECIALTY PLANT***

### **113. FLAKE LANTHANUM PROCESS – MDAQMD PERMIT # B003265:**

5240 Mix Tank, 7500 gal, and pump @ 3 hp  
5240 Q.C. Tank, 4248 gal and pump @ 7.5 hp  
Evaporation Tank No. 1, 1500 gal, with agitator @ 10 hp  
Evaporation Tank No. 2, 1500 gal, with agitator @ 10 hp  
Evaporation Tank No. 3, 2000 gal, with agitator @ 15 hp  
Lanthanum Flaker

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum of emissions.
2. This equipment shall not be operated unless vented to properly functioning scrubber under valid District permit C003266.

### **114. SCRUBBER – LANTHANUM FLAKE PROCESS – MDAQMD PERMIT # C003266:**

A Duall, model F303 rated at 2000 CFM, which is produced by a 7.5 hp motor driven ID fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This scrubber shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles consistent with minimum emissions of contaminants.
2. A log of all maintenance and repairs/replacements shall be kept for this equipment.
3. A 12% caustic solution is used to make-up the 6% scrubber solution. The scrubber solution shall be maintained at 6% + or - 1% (i.e. within 5-7%). The 12% caustic shall be maintained at 10-18%. A sample of each of the 12 and 6% solutions shall be collected and titrated each shift when either this scrubber or the scrubber described in District

permit C002077, which serves the CE-96 Plant Process, is in operation. The results of the titrations shall be recorded.

4. Logs mentioned in the above conditions shall be kept current, on-site for a minimum of five (5) years and provided to District personnel on request.
5. This scrubber shall operate concurrently with the Lanthanum Flake Process, District permit B003265.

### ***PROCESS: #6B – SPECIALTY PLANT***

**115. CALCINER SERVING THE NEODYMIUM OXIDE PROCESS WITH 300 LB/H AND 600 LB/H AVERAGE AND MAXIMUM THROUGHPUTS AT 1800 DEGREES F ON NEODYMIUM CARBONATE, FIRED WITH PROPANE – MDAQMD PERMIT # B003995:**

Conveyor, Screw, 3 hp  
Hopper, Packaging, 4 cubic ft  
Agitator, Helix Hopper, 0.5 hp  
Conveyor, Helix Product  
Screen, Sweco-2' diameter & 0.5 hp  
Cooling Section  
Blower, Air Intake, 3 hp  
Dryer-Zone 4  
Dryer-Zone 3  
Dryer-Zone 2  
Dryer-Zone 1  
Pre-Heat Section  
Furnace-Tube 17' x 18" diameter, w 1 and ½ in lifts  
Screw, Feed @ 0.5 hp  
Hopper, Feed @ 112 cubic ft

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless it is vented to functioning control equipment covered by valid District permit C003996.
2. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

**116. BAGHOUSE – NEODYMIUM OXIDE CALCINER – MDAQMD PERMIT # C003996:**

A unit by Luzan and Company with the following specifications:

Bags: 32, each at 5 in ID and 10 ft long;

Total Cloth Filter Area: 393235 sq ft

Air to Cloth Ratio: 4.00: 1;

Flow rate: 4200 ACFM, at 350 degrees Fahrenheit, by a 20 hp fan.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the Neodymium Oxide Calciner under valid District permit B003995.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

***PROCESS: #6C – SPECIALTY PLANT***

**117. TANK FARM – FEED STORAGE – MDAQMD PERMIT # T004092:**

4 Storage Tanks, each at 20,000 gal; and

2 Feed Transfer Pumps, each at 2 hp.

For Fee purposes, this unit has a total volume of 80,000 gal.



PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles, which produce the minimum of emissions.

**118. SOLVENT EXTRACTION, CIRCUIT NO. 4 – MDAQMD PERMIT # B002371:**

T-SX-401 SX No. 4 Feed Tank, 1692 gal  
AG-SX-400 Extraction Cell, 75 total, each @ 0.33 hp; total volume: 17,520 gal  
T-LP-207 Gd, Tb and LnO Dissolving Tank (5000 gal) and Agitator, 2 hp  
P-LP-207-1 Gd, Tb and LnO Dissolving Tank Discharge Pump  
T-SP-201 SX No. 4 Feed Surge Tank, 7000 gal  
P-SP-201-1 SX No. 4 Feed Surge Tank Pump  
T-LP-209A SX No. 4 Feed Adjust Tank (1510 gal), with Agitator  
T-LP-210b SX No. 4 Feed Adjust Tank (1510 gal), with Agitator  
P-LP-209A1 Feed Adjust Tank Pump  
P-SX-401-1 SX No. 4 Feed Tank Pump  
T-SX-402 SX No. 4 Feed Head Tank, 60 gal  
T-SX-404 Barren Organic Pump Tank, 157 gal  
P-SX-405 Barren Organic Head Tank, 534 gal  
T-SX-406 Organic Surge Tank, 13,700 gal  
P-SX-406-1 Organic Surge Tank Pump  
T-SX-403 Gd Raffinate Trap and Pump Tank, 157 gal  
T-SX-407 Heavies Pregnant Solution Trap and Pump Tank, 157 gal  
T-SX-410 Tb Pregnant Solution Trap and Pump Tank, 157 gal  
T-SX-409 Heavies Surge Tank, 5287 gal  
P-SX-409-1 Heavies Surge Tank Pump  
T-HP-211 Heavies Precipitation Tank (3760 gallons) with Agitator  
P-HP-211 Heavies Filter Press  
T-HP-211 Heavies Thickener Overflow Tank, 157 gal  
P-HP-213-1 Heavies Thickener Overflow Tank Pump  
T-SX-412 Tb Quality Control Tank (800 gal), with Agitator  
T-SX-413 Tb Quality Control Tank (800 gal), with Agitator  
P-SX-412-1 Tb Quality Control Tank Pump  
T-SX-414 Tb Surge Tank, 2303 gal  
P-SX-414-1 Tb Surge Tank Pump  
T-TP-214 Tb Precipitation Tank (2750 gal), with Agitator  
F-TB-216 Tb Filter, 185 gal  
DELTECH electric Product Furnace rated at 150 kW(e)  
Sweco Screen, single deck

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer/supplier.

**119. SOLVENT EXTRACTION CIRCUIT – SX 3/6 – MDAQMD PERMIT # B002373:**

This equipment is located at the Chemical Plant

63-3302 Reagent Solution Tank, 250 gal  
63-2702 Reagent Solution Pump  
63-2705 Loaded Organic Pump  
63-3305 Loaded Solvent Tank, 9306 gal  
63-3676 thru 63-3681: SX-3 Solvent Extraction Cells, with 6 mixers, each at 3 hp  
63-3301 SX-3 Feed Tank, 22,000 gal  
63-2701 SX-3 Feed Pump  
63-3317 Reagent Holding Tank, 1630 gal  
63-2727 Reagent Holding Tank Pump  
63-2707 Raffinate Pump Tank Pump  
63-3307 Raffinate Pump Tank, 265 gal  
63-3601 to 63-3675 SX-6 Solvent Extraction Cells, with mixers  
63-3308 Trap Tank, 265 gal  
63-2708 Organic Pump  
63-2710 Raffinate Pump Tank Pump  
63-3310 Raffinate Pump Tank, 265 gal  
63-3312A Pregnant, with Organic Removal, 116 gal  
63-2712A Pregnant Solution Sump Pump  
63-3311 Trap Tank, 265 gal  
63-2711 Organic Pump  
63-3312B Pregnant, with Organic Removal, 116 gal  
63-2712B Pregnant Solution Sump Pump  
63-2709 Barren Organic Pump  
63-3309 Barren Organic Tank, 4800 gal  
63-3304 Raffinate Surge Tank, 22,000 gal  
63-1301 Feed Hopper  
63-2502 Screw Conveyor  
63-2801 Precipitation Tank, 14,000 gal  
63-1101 Agitator  
63-3313 Storage Feed Tank, 2914  
63-2713 Nitrate Pregnant Solution Pump  
63-2714 Precipitation Transfer Pump  
63-3201 Belt Filter No. 1

63-3320 Agitated Pump Tank  
63-2731 Agitated Pump Tank Pump  
63-1115 Agitated Pump Tank Agitator  
63-1305 Wet Bag Dump Hopper  
63-3314 Repulp Tank, 200 gal  
63-1114 Agitator  
63-3401 Surge Thickener, 35,000 gal  
63-3401-01 Surge Thickener Rake Drive  
63-3401-02 Surge Thickener Rake Lift  
63-3202 Belt Filter No. 2  
63-3300 Precipitation Tank, 15,000  
63-1102 Agitator  
63-1104 Agitator  
63-315A & B and 63-316 Filtrate Receivers  
63-2720 thru 63-2723 Filtrate Pumps (4, of which 2 are standby)  
63-1601 Vacuum Pump  
63-2725 Sump Pump  
63-1115 Agitated Pump Tank Agitator  
63-2731 Agitated Pump Tank Pump  
63-1901 De-Lumper  
63-2504 Bucket Elevator  
63-2502 Screw Conveyor  
63-2703 SX-3 Raffinate Pump  
63-2728 SX-6 OC Tank Pump  
63-11103 Reagent Solution Tank Agitator  
NOTE: The total volume of all the above tanks/cells is: 34,000 gallons

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS  
RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX.  
ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE  
VERSION = 07/25/77

1. This equipment shall be installed, operated and maintained in strict accord with the recommendations of the manufacturer/supplier.
2. This permit has been issued to allow the owner/operator, o/o, to install new equipment and replace the previous SX-6 circuit, and create the new SX-3/6 circuit. The District shall be notified in writing when:
  - a. Construction commences,
  - b. Construction has been completed, and
  - c. The equipment becomes operational.
3. Compliance emissions tests shall be conducted within 180 days after 2(c), above in strict accord with a test protocol approved by this District. The test protocol shall follow the requirements described in the District's "Compliance Test Procedural Manual". A formal

report on the results of these tests shall be forwarded to the District within 45 days of the last day of on-site measurements/sample collections.

**120. KEROSENE STORAGE - SEPARATIONS PLANT STORAGE – MDAQMD PERMIT #T001948:**

A mild steel tank, whose capacity is 13,700 gallons

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. Any modifications and/or substantial changes to the design of the equipment listed above, which causes a change in the emissions to the atmosphere shall be submitted to the District for approval prior to the changes.
2. The owner/operator shall comply with all applicable portions of District rule 442, which concerns non-photochemically reactive solvents.

**121. SOLVENT EXTRACTION -CERIUM SPECIALTY PLANT (SX-7) – MDAQMD PERMIT # B002374:**

AG-SX-700 Extraction Cells, (16), with Agitators @ 1/3 hp each  
T-SX-703 SX-7 Feed Tank  
P-SX-703-1 SX-7 Feed Tank Pump, at 1 hp  
T-SX-705 SX-7 Feed Head Pump Tank  
T-SX-706 SX-7 Barren Organic Pump Tank, at 1 hp  
T-SX-707 SX-7 Barren Organic Head Tank  
T-SX-708 SX-7 Raffinate Trap and Pump Tank, at 1 hp  
T-SX-709 SX-7 Pregnant Solution Transfer/Pump Tank, at 1 hp  
T-SX-710A Cerium Precipitation Quality Control Tank, with Agitator, at 1 hp  
T-SX-711B Cerium Precipitation Quality Control Tank, with Agitator, at 1 hp  
P-SX-710A Cerium Precipitation Quality Control Tank Pump, at 1 hp  
T-GP-217 Cerium Surge Precipitation Feed Tank  
PT-GP-217-1 Cerium Surge Precipitation Feed Tank Pump  
T-GP-219 Cerium Precipitation Tank, with Agitator, at 1 hp  
DF-GP-220 Cerium Filter with Drive Motor  
Cerium Cake Chute  
Cerium Filtrate Receiver and Filtrate Moisture Trap  
Cerium Filter Seal Tank  
Cerium Filtrate Pump, at 1 hp

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier.

**122. SPECIALTY PLANT No. 1 NEODYMIUM DRYER – MDAQMD PERMIT # B004923:**

Wyssmont Dryer with the following major components:

63-2302 Recirculation fan  
63-2302 Heater  
63-2304 Burner/Air Mix @ 1.25 million Btu/h on propane  
63-2301 Wyssmont Dryer Motor  
63-3505 Airlock  
63-2505 Screw Conveyor  
63-2505 Dryer Discharge Bucket Elevator  
63-1304 Bagging Station  
63-1306 Dry Bag Diverter Gate  
63-1301 Wet Bag Loading Station  
63-1303 Diverter Gate

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit C004925.
2. This equipment shall be operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering practices consistent with minimum emissions of contaminants.
3. The owner/operator shall maintain a log of all fuel used in this dryer or the combined use of this and the permitted Calciner under valid District permit B004924. This log shall be maintained current (by the calendar month), on-site for a minimum of five (5) years and provided to District personnel on request.

**123. BAGHOUSE - No.1 NEODYMIUM DRYER – MDAQMD PERMIT # C004925:**

A unit by Fabric Filters Air Systems, model number 81-10, (Molycorp ID: 63-3504) with the following specifications:

Bags: Polyethylene, designed to collect particles at 2 gr/CF of 1-10 micron;

Total Cloth Filter Area: 1015 sq ft

Air to Cloth Ratio: 4.00: 1;

Flow rate: 4300 ACFM, at 350 degrees Fahrenheit, by a 15 hp fan.

Note: This baghouse shares an internal wall in common with the baghouse (District permit C004926) that collects particles from the No. 2 Neodymium Calciner at the Specialty Plant.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 1 Neodymium Dryer at the Specialty Plant under valid District permit B004923.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

**124. SPECIALTY PLANT NO. 2 NEODYMIUM DRYER – MDAQMD PERMIT # B004924:**

Calciner is by Alfred Ceramics Enterprises, Inc, and includes the following major components:

63-1307 Live Bottom Surge Bin, with conveyor and agitator, 100 cu ft

63-2507 Calciner Feed Bucket Elevator

63-1308 Calciner Feed Hopper with conveyor and agitator

63-2508 Calciner Feed Screw

63-2101 Calciner motor rotation drive

63-2305 Burner and Fan rated at 1.5 million Btu/h on propane fuel

63-2509 Water Cooled Screw Conveyor

63-2510 Product Bucket Elevator

63-1401 Screen motor

63-1310 Ribbon Blender

63-3101 Product Bag Packager and Scale

63-1309 Reject Loading

Fee Calculation = 1.5 million Btu/h + (2550 Btu/h/hp x 41 hp) = 1.60 million Btu/h

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This equipment shall not be operated unless vented to properly functioning baghouse under valid District permit C004926.
2. This equipment shall be operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering practices consistent with minimum emissions of contaminants.
3. The owner/operator shall maintain a log of all fuel used in this Calciner or the combined use of this and the permitted dryer under valid District permit B004923. This log shall be maintained current (by the calendar month), on-site for a minimum of five (5) years and provided to District personnel on request.

**125. BAGHOUSE – NO. 2 NEODYMIUM DRYER – MDAQMD PERMIT # C004926:**

A unit by Fabric Filters Air Systems, model number 81-10, (Molycorp ID: 63-3504) with the following specifications:

Bags: Polyethylene, designed to collect particles at 2 gr/CF of 1-10 micron;

Total Cloth Filter Area: 819 sq ft

Air to Cloth Ratio: 4.00: 1;

Flow rate: 4300 ACFM, at 350 degrees Fahrenheit, by a 15 hp fan.

Note: This baghouse shares an internal wall in common with the baghouse (District permit C004926) that collects particles from the No. 1 Neodymium Dryer at the Specialty Plant.

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. This baghouse shall operate concurrently with the equipment described as the No. 2 Neodymium Dryer at the Specialty Plant under valid District permit B004924.
2. The owner/operator, o/o, shall conduct the following minimum program of inspection/maintenance:
  - a. Weekly readings and recording of the pressure differential across the bags;
  - b. Monthly visible emissions determinations, VEE results logged;
  - c. Quarterly inspections of the bags and their suspension systems, inspections, replacements and repairs logged.The above frequencies may be changed upon successful demonstration to the District that less stringent monitoring is equally effective.  
Items a, b, and c shall be logged. The log shall be maintained current, on-site for a minimum of five (5) years and provided to District personnel on request.
3. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.
4. Regular emissions testing for demonstration of compliance with District rules 404 and 405 is not required. The District may require emissions testing at its discretion.
5. The o/o shall operate and maintain this baghouse in strict accord with the recommendations of the manufacturer/supplier.

## ***PROCESS: #7 – MISCELLANEOUS EQUIPMENT***

### **126. TANK – WASTE OIL – MDAQMD PERMIT # T003117:**

Supervault 2000 gal, double wall

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77



1. Waste oil, which has been generated on this site shall be the only material stored in this tank.
2. No hazardous and/or toxic materials shall be stored in this tank.

**127. GASOLINE DISPENSING FACILITY (NON-RETAIL) – MDAQMD PERMIT # N004629:**

Capacity	Fuel Type	Underground
3000	87U	NO
500	Diesel	NO

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. The toll-free telephone number that must be posted is 1-800-635-4617.
2. The owner/operator (o/o) shall maintain a log of all inspections, repairs, and maintenance on equipment subject to Rule 461. Such logs or records shall be maintained at the facility for at least five (5) years and shall be available to the District upon request.
3. Any modifications or changes to the piping or control fittings of the vapor recovery system require prior approval from the District.

**128. DIESEL ENGINE DRIVEN GENERATOR – MDAQMD PERMIT # B007792:**

A Caterpillar engine rated at 1764 bhp. This engine produces a maximum of 1252 kW(e) at 89.7 gal/h. This is Caterpillar's model 3512 DITA that operates at 1800 rpm Serial # 8RM00698

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77

1. Installation, maintenance and operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
2. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier.

3. This unit shall be limited to use during the current shut-down of Specialty Plant and the Separations Plant, except those packaging and drying operations, the Rare Earth Roaster and the Lanthanum precipitation circuit, which are still required. Note: because these units are non-operational, their emissions are offsets for the temporary use of this engine. Should this equipment operate after start-up of the equipment in shutdown, offsets and other applicable parts of Regulation XIII shall be enforced.
4. The owner/operator, (o/o), shall use only diesel fuel whose sulfur concentration is less than or equal to 0.05% on a weight per weight basis in this unit.
5. The o/o shall maintain a log for this unit, which, at a minimum, contains the information specified below. This log shall be maintained current and on-site for a minimum of five (5) years and provided to District personnel on request:
  - a. Date of each use;
  - b. Duration of each use, in minutes;
  - c. Fuel consumed during each month year, in gallons;
  - d. Fuel sulfur concentration (the o/o may use the supplier's certification of sulfur content if it is maintained as part of this log).
6. The o/o is limited to using this unit no more than 1300 hours in any 12 consecutive month period.
7. The submittal, which contains emissions estimates based on reliable emissions tests and the District's Mineral Guidance Document, which accompanied the application are an integral part of the evaluation and this permit. They are incorporated in their entirety in both. The application and the submittal act as specific limitations on this operation.

## PART IV STANDARD FEDERAL OPERATING PERMIT CONDITIONS

A. STANDARD CONDITIONS:

1. If any portion of this Federal Operating Permit is found to be invalid by the final decision of a court of competent jurisdiction the remaining portion(s) of this Federal Operating Permit shall not be affected thereby.  
[40 CFR 70.6(a)(5); Rule 1203(D)(1)(f)(i)]
2. Owner/Operator shall comply with all condition(s) contained herein. Noncompliance with any condition(s) contained herein constitutes a violation of the Federal Clean Air Act and of MDAQMD Regulation XII and is grounds for enforcement action; termination, revocation and re-issuance, or modification of this Federal Operating Permit; and/or grounds for denial of a renewal of this Federal Operating Permit.  
[40 CFR 70.6(a)(6)(i); Rule 1203(D)(1)(f)(ii)]
3. It shall not be a defense in an enforcement action brought for violation(s) of condition(s) contained in this Federal Operating Permit that it would have been necessary to halt or reduce activity to maintain compliance with those condition(s).  
[40 CFR 70.6(a)(6)(ii); Rule 1203(D)(1)(f)(iii)]
4. This Federal Operating Permit may be modified, revoked, reopened or terminated for cause.  
[40 CFR 70.6(a)(6)(iii); Rule 1203(D)(1)(f)(iv)]
5. The filing of an application for modification; a request for revocation and re-issuance; a request for termination; notifications of planned changes; or anticipated noncompliance with condition(s) does not stay any condition contained in this Federal Operating Permit.  
[40 CFR 70.6(a)(6)(iii); Rule 1203(D)(1)(f)(v)]
6. The issuance of this Federal Operating Permit does not convey any property rights of any sort nor does it convey any exclusive privilege.  
[40 CFR 70.6(a)(6)(iv); Rule 1203(D)(1)(f)(vi)]
7. Owner/Operator shall furnish to the MDAQMD, within a reasonable time as specified by the MDAQMD, any information that the MDAQMD may request in writing.  
[40 CFR 70.6(a)(6)(v); Rule 1203(D)(1)(f)(vii)]
8. Owner/Operator shall furnish to District, state or federal personnel, upon request, copies of any records required to be kept pursuant to condition(s) of this Federal Operating Permit.  
[40 CFR 70.6(a)(6)(v); Rule 1203(D)(1)(f)(viii)]

9. Any records required to be generated and/or kept by any portion of this Federal Operating Permit shall be retained by the facility Owner/Operator for at least five (5) years from the date the records were created.  
[40 CFR 70.6(a)(3)(ii)(B); Rule 1203(D)(1)(d)(ii)]
10. Owner/Operator shall pay all applicable fees as specified in MDAQMD Regulation III, including those fees related to permits as set forth in Rules 301 and 312.  
[40 CFR 70.6(a)(7); Rule 1203(D)(1)(f)(ix)]
11. Owner/Operator shall not be required to revise this permit for approved economic incentives, marketable permits, emissions trading or other similar programs provided for in this permit.  
[40 CFR 70.6(a)(8); Rule 1203(D)(1)(f)(x)]
12. Compliance with condition(s) contained in this Federal Operating Permit shall be deemed compliance with the Applicable Requirement underlying such condition(s). The District clarifies that “only” Applicable Requirements listed & identified elsewhere in this Title V Permit are covered by this Permit Shield and does not extend to any unlisted/unidentified conditions pursuant to the requirements of 40 CFR 70.6(f)(1)(i).  
[40 CFR 70.6(f)(1)(i); Rule 1203(G)(1)]
13. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to limit the emergency powers of USEPA as set forth in 42 U.S.C. §7603.  
[40 CFR 70.6(f)(3)(i); Rule 1203(G)(3)(a)]
14. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to limit liability for violations which occurred prior to the issuance of this Federal Operating Permit.  
[40 CFR 70.6(f)(3)(ii); Rule 1203(G)(3)(b)]
15. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to alter any Applicable Requirement Contained in the Acid Rain Program.  
[40 CFR 70.6(f)(3)(iii); Rule 1203(G)(3)(c)]
16. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to limit the ability of USEPA or the MDAQMD to obtain information pursuant to Health and Safety Code Sections 42303 or 42705, or 42 U.S.C. §7414 or any other applicable provision of the State or Federal law.  
[40 CFR 70.6(f)(3)(iv); Rule 1203(G)(3)(d)]
17. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to apply to emissions trading pursuant to provisions contained in an applicable State Implementation Plan.  
[40 CFR 70.4(b)(12)(ii)(B); Rule 1203(G)(3)(e)]

18. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to apply to changes made which are not expressly allowed by this Federal Operating Permit.  
[40 CFR 70.4(b)(14)(iii); Rule 1203(G)(3)(f)]
19. The Permit Shield set forth in Part IV, condition 12, shall not be construed to apply to changes made pursuant to the Significant Permit Modification provisions until such changes are included in this Federal Operating Permit.  
[40 CFR 70.5(a)(1)(ii), 70.7(e)(2)(vi); Rule 1203 (G)(3)(g)]
20. If Owner/Operator performs maintenance on, or services, repairs, or disposes of appliances, Owner/Operator shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. These requirements are Federally Enforceable through this Title V Permit.  
[40 CFR Part 82, Subpart F]
21. If Owner/Operator performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), Owner/Operator shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. These requirements are Federally Enforceable through this Title V Permit.  
[40 CFR Part 82, Subpart B]
22. Notwithstanding the testing requirements contained elsewhere in this Title V Permit, any credible evidence may be used to establish violations, including but not limited to; reference test methods, engineering calculations, indirect estimates of emissions, CEMS data, and parametric monitoring data. Data need not be required to be collected in a Title V permit in order to be considered credible.  
[Section 113(a) of the Clean Air Act]

## PART V OPERATIONAL FLEXIBILITY

A. ALTERNATIVE OPERATING SCENARIO(S):

No additional Operational Flexibility provisions allowed without appropriate permit modifications.

## PART VI PERMIT SHIELD

### Non-Applicable Requirements for Molycorp Mountain Pass Mine

<u>Citation</u>	<u>Description</u>	<u>Explanation of Why Requirement is Not Applicable or How Requirement is Modified</u>
NSPS Subpart LL	New Source Performance Standards for Metallic Mineral Processing Plants	This requirement is not applicable to the facility because the facility does not meet the definition of a “metallic mineral processing plant” provided in 40 CFR 60.381.
NSPS Subpart OOO	New Source Performance Standards for Nonmetallic Mineral Processing Plants	This requirement is not applicable to the facility because the facility does not meet the definition of a “nonmetallic mineral processing plant” provided in 40 CFR 60.671.
NSPS Subpart UUU	Standards of Performance for Calciners and Driers in the Mineral Industries	This requirement is not applicable to the facility because the facility does not meet the definition of a “mineral processing plant” provided in 40 CFR 60.731.

## PART VII CONVENTIONS, ABBREVIATIONS, DEFINITIONS

A. The following referencing conventions are used in this Federal Operating Permit:

40CFR60, Standards of Performance for New Stationary Sources (NSPS)  
 40CFR60, Appendix F, Quality Assurance Procedures  
 40CFR61, National Emission Standards for Hazardous Air Pollutants (NESHAPS)  
 40CFR61, Subpart M, National Emission Standards for Asbestos  
 40CFR72, Permits Regulation (Acid Rain Program)  
 40CFR73, Sulfur Dioxide Allowance System  
 40CFR75, Continuous Emission Monitoring  
 40CFR75, Subpart D, Missing Data Substitution Procedures  
 40CFR75, Appendix B, Quality Assurance and Quality Control Procedures  
 40CFR75, Appendix C, Missing Data Estimating Procedures  
 40CFR75, Appendix D, Optional SO<sub>2</sub> Emissions Data Protocol  
 40CFR75, Appendix F, Conversion Procedures  
 40CFR75, Appendix G, Determination of CO<sub>2</sub> Emissions

B. Other conventions:

1. Unless otherwise noted, a “day” shall be considered a 24 hour period from midnight to midnight (i.e., calendar day).
2. The process unit identifications represent the District permit number designations. These numbers are not sequential. The use of District permit numbers provides continuity between the District and Federal Operating Permit systems.

C. Abbreviations used in this permit are as follows:

CFR	Code of Federal Regulations
APCO	Air Pollution Control Officer
bhp	brake horse power
Btu	British thermal units
CCR	California Code of Regulations
CEMS	continuous emissions monitoring system
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
District	Mojave Desert Air Quality Management District (formed July 1993)
MDAQMD	Mojave Desert Air Quality Management District (formed July 1993)
MD	Mojave Desert Air Quality Management District (formed July 1993)
SB	San Bernardino County APCD (1975 to formation of MDAQMD)
gr/dscf	grains per dry standard cubic foot
gpm	gallons per minute
gph	gallons per hour
hp	horse power
H&SC	California Health and Safety Code
lb	pounds
lb / hr	pounds per hour
lb / MM Btu	pounds per million British thermal units
MM Btu	million British thermal units
MM Btu/hr	million British thermal units per hour
MW	Megawatt electrical power
MW(e) net	net Megawatt electrical power
NH <sub>3</sub>	ammonia



NMOC	non-methane organic compounds
NO <sub>x</sub>	oxides of nitrogen
NO <sub>2</sub>	nitrogen dioxide
O <sub>2</sub>	oxygen
pH	pH (acidity measure of solution)
PM <sub>10</sub>	particulate matter less than 10 microns aerodynamic diameter
ppmv	parts per million by volume
psig	pounds per square inch gauge pressure
QA	quality assurance
rpm	revolutions per minute
RVP	Reid vapor pressure
SCAQMD	South Coast Air Quality Management District
scfm	standard cubic feet per minute
scfh	standard cubic feet per hour
SIC	Standard Industrial Classification
SIP	State of California Implementation Plan
SO <sub>x</sub>	oxides of sulfur
SO <sub>2</sub>	sulfur dioxide
tpy	tons per year
TVP	true vapor pressure

## APPENDIX A:

(Table 1, Table A-1 and Table A-2 are inserted here)